

SHARP®

ELECTRONIC CASH REGISTER

MODEL

ER-A440

INSTRUCTION MANUAL



CAUTION:

The cash register and the remote drawer should be securely fitted to the supporting platforms to avoid instability when the drawers are open.

CAUTION:

The socket-outlet shall be installed near the equipment and shall be easily accessible.

VORSICHT:

Die Netzsteckdose muß nahe dem Gerät angebracht und leicht zugänglich sein.

ATTENTION:

La prise de courant murale devra être installée à proximité de l'équipement et devra être facilement accessible.

AVISO:

El tomacorriente debe estar instalado cerca del equipo y debe quedar bien accesible.

VARNING:

Det matande vägguttaget skall placeras nära apparaten och vara lätt åtkomligt.

CAUTION:

For a complete electrical disconnection pull out the mains plug.

VORSICHT:

Zur vollständigen elektrischen Trennung vom Netz den Netzstecker ziehen.

ATTENTION:

Pour obtenir une mise hors-circuit totale, débrancher la prise de courant secteur.

AVISO:

Para una desconexión eléctrica completa, desenchufar el enchufe de tomacorriente.

VARNING:

För att helt koppla från strömmen, dra ut stickproppen.

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/EOK και 73/23/EOK, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/EOK.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som kompletteras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-A440. Please read this Manual carefully before operating your machine in order to gain full understanding of functions and features.

Please keep this manual for future reference, it will help you, if you encounter any operational problems.

IMPORTANT

- **Install your register in a location that is not subject to direct radiation, unusual temperature changes, high humidity or exposed to water sources.**
Installation in such locations could cause damage to the cabinet and the electronic components.
- **The register should not be operated by an individual with wet hands.**
The water could seep into the interior of the register and cause component failure.
- **When cleaning your register, use a dry, soft cloth. Never use solvents, such as benzine and/or thinner.**
The use of such chemicals will lead to discoloration or deterioration of the cabinet.
- **The register plugs into any standard wall outlet (Official (nominal) voltage).**
Other electrical devices on the same electrical circuit could cause the register to malfunction.
- **If the register malfunctions, call your local dealer for service - do not try to repair the register yourself.**
- **For a complete electrical disconnection, pull out the mains plug.**

PRECAUTION

This Electronic Cash Register has a built-in memory protection circuit which is operated by rechargeable batteries.

As you know, all batteries will, in time, dissipate their charge even if not used. Therefore to insure an adequate initial charge in the protection circuit, and to prevent any possible loss of memory upon installation, it is recommended that each unit be allowed to recharge for a period of 24 to 48 hours prior to use by the customer. In order to charge the batteries, the machine must be plugged in. This recharging precaution can prevent unnecessary initial service calls.

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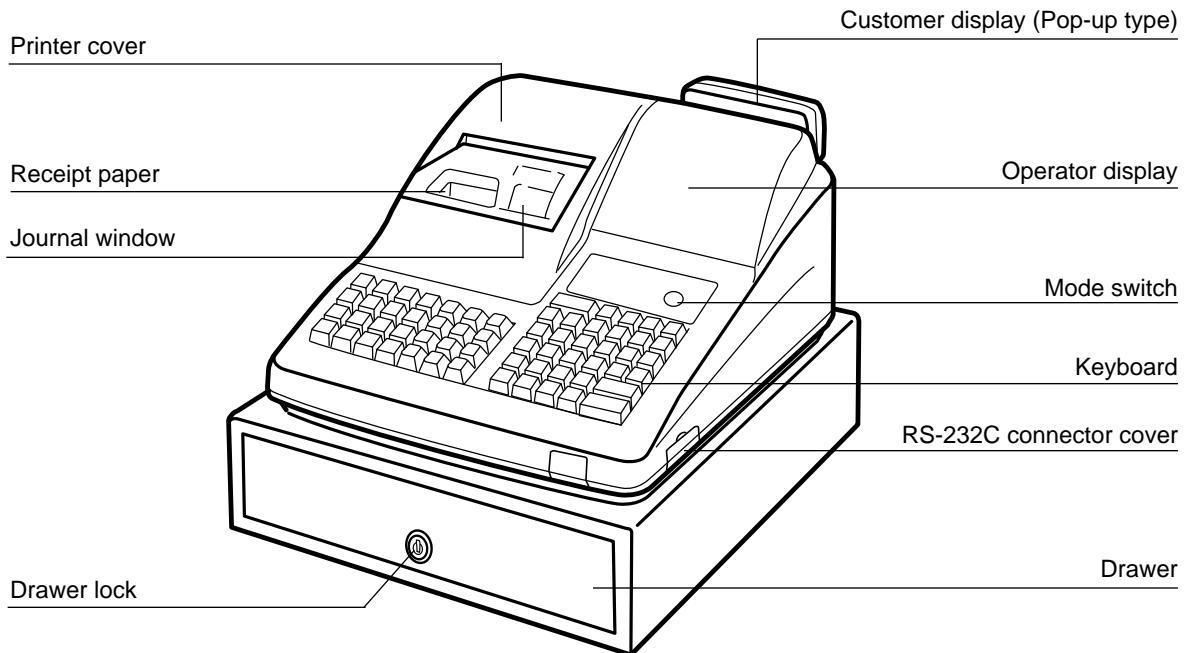
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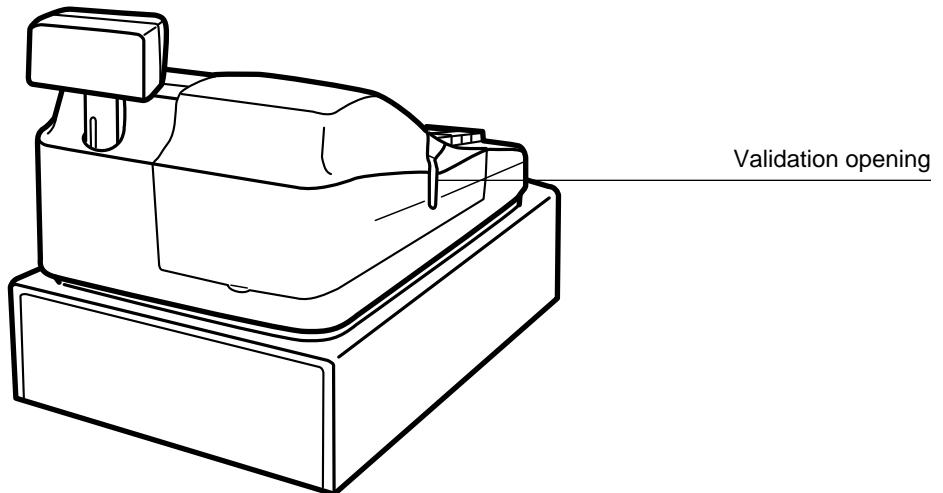
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EXTERNAL VIEW

■ Front view

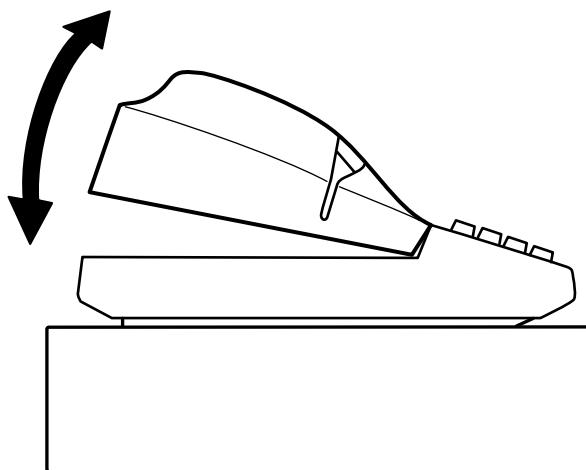


■ Rear view

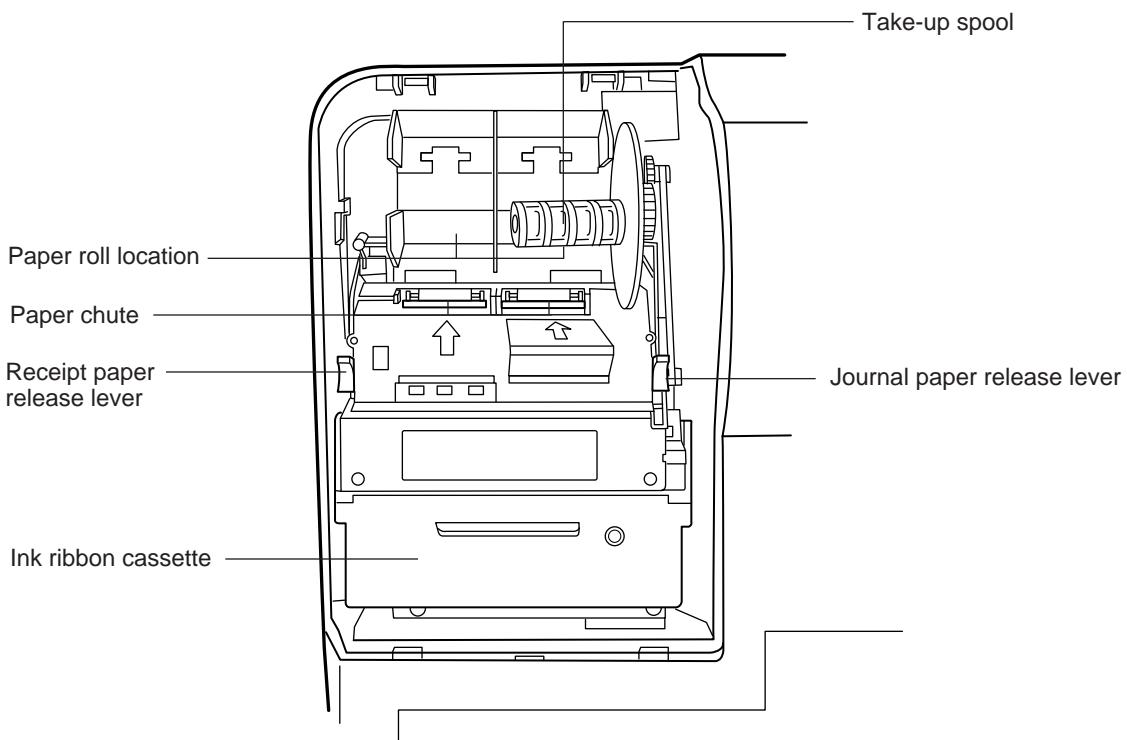


PRINTER

INSTALLING AND REMOVING THE PRINTER COVER



When removing the printer cover, lift up its rear.
When installing the printer cover, hook it on the pawls on the cabinet and shut it.



• Paper release lever

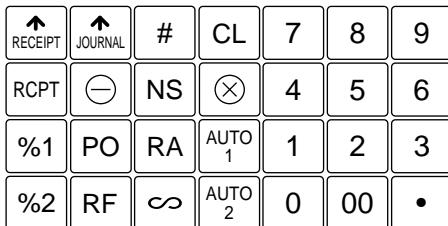
Used to load or unload the machine with paper roll (receipt and journal paper). Keep the lever down to take in or out the paper roll.

Note

Do not attempt to take in or out the paper roll without pressing this lever. This may result in damage to the printer.

KEYBOARD

1 Standard keyboard layout



PLU/SUB	AMT	VAT	EX1	CASH #
5	10	15	20	EX2 CR3
4	9	14	19	CR1 CR2
3	8	13	18	CH1 CH2
2	7	12	17	ST
1	6	11	16	TL

Note

All the keys but the receipt paper feed and journal paper feed keys can be re-positioned. If you want to change the layout, contact your dealer.

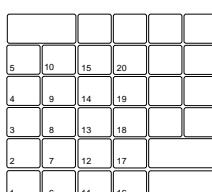
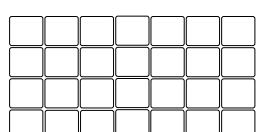
↑ RECEIPT	Receipt paper feed key	VAT	Value added tax key
↑ JOURNAL	Journal paper feed key	#	Non-add code key
0		CASH #	Cashier code entry key
1	Numeric keys	RCPT	Receipt print key
9		(⊖)	Discount key
00		AUTO 1	Automatic sequencing 1 and 2 keys
.	Decimal point key	AUTO 2	
(⊗)	Multiplication/split-pricing key	%1	Percent 1 and 2 keys
CL	Clear key	%2	
1	Department keys	NS	No-sale key
20		RA	Received-on-account key
PLU/SUB		PO	Paid-out key
AMT	Price lookup/subdepartment key	RF	Refund key
	Amount entry key	∞	Void key

EX1	Foreign currency exchange 1 and 2 keys	* AUTO 3	Automatic sequencing 3 through 10 keys
EX2		* AUTO 10	
CR1	Credit 1 through 3 keys	* RA2	Received-on-account 2 key
1		* PO2	Paid-out 2 key
CR3		* CR4	Credit 4 key
CH1	Cheque 1 and 2 keys	* CA2	Cash total 2 key
CH2		* EX3	Foreign currency exchange 3 and 4 keys
ST	Subtotal key	* EX4	
TL	Total (cash total) key	* CH3	Cheque 3 and 4 keys
* 000	Numeric key	* CH4	
* 21	Department keys	* VAT SHIFT	Value added tax shift key
* 50		* DIFFER ST	Difference subtotal key
* %3	Percent 3 and 4 keys	* VP	Validation print key
* %4		* 1/2	1/2 key
* Ø2	Discount 2 through 4 keys	* CLERK #	Clerk code entry key
* Ø4		* 1	
* GC COPY	Guest check copy key	* 68	Direct price lookup/subdepartment keys

Note The standard keyboard is not equipped with those keys that are marked with (*).

2 Standard key number layout

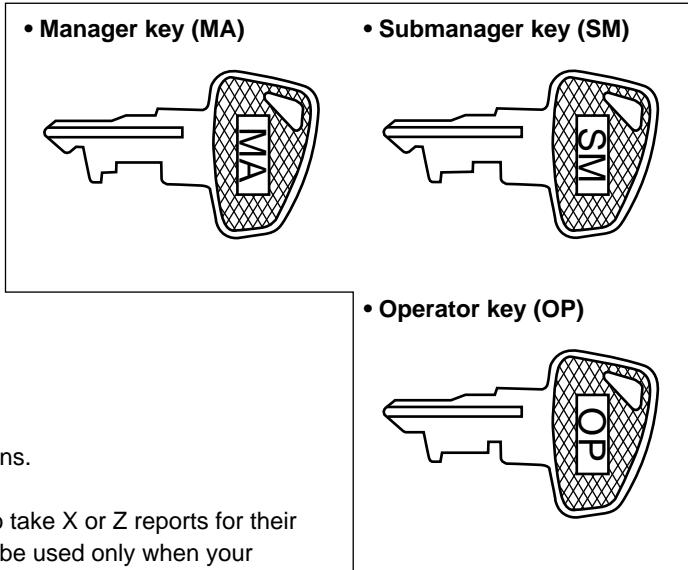
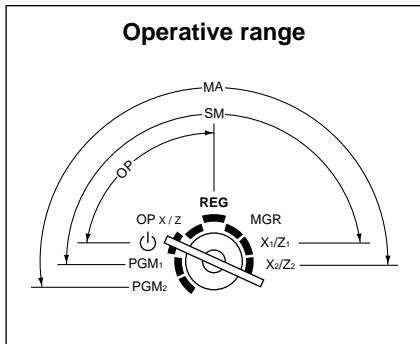
These key numbers are used for positioning of department keys and direct PLU keys. Refer to pages 35 and 43. This layout can be changed by your dealer.



KEYS AND SWITCHES

1 Mode switch and mode keys

The mode switch can be operated by inserting one of the three supplied mode keys - manager (MA), submanager (SM), and operator (OP) keys. These keys can be inserted or removed only when the switch is in the "REG" or "⊕" position.

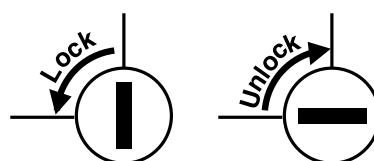
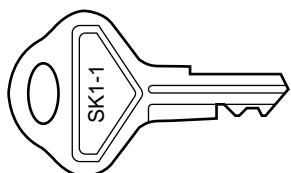


The mode switch has these settings:

- ⊕ : This mode locks all register operations.
No change occurs to register data.
- OP X/Z:** This setting allows cashiers/clerks to take X or Z reports for their sales information. (This setting may be used only when your register has been programmed for "OP X/Z mode available" in the PGM2 mode.) It can also be used for displaying the time and printing the employee arrival and departure times. And it can be used to toggle receipt state "ON" and "OFF" by pressing the **RCPT** key.
- REG:** For entering sales
- PGM1:** To program those items that need to be changed often: e.g., unit prices of departments or PLUs, and percentages
- PGM2:** To program all PGM1 items and those items that do not require frequent changes: e.g., date, time, or a variety of register functions
- MGR:** For manager's and submanager's entries
The manager can use this mode to make entries that are not permitted to be made by cashiers - for example, after-transaction voiding and override entry.
- X1/Z1:** To take the X/Z report for various daily totals
- X2/Z2:** To take the X/Z report for various periodic (weekly or monthly) consolidation

2 Drawer lock key

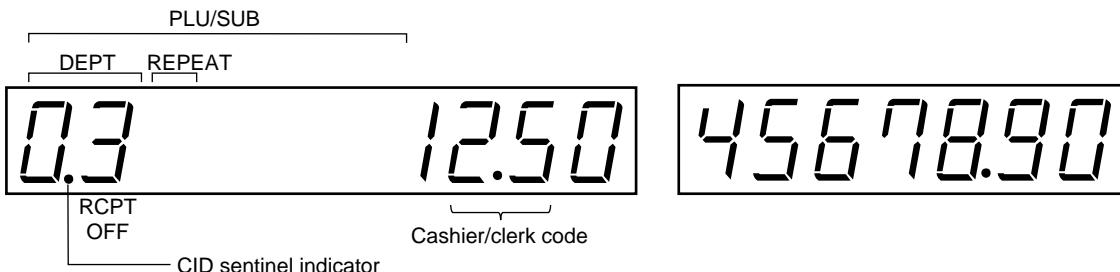
This key locks and unlocks the drawer. To lock it, turn 90 degrees counterclockwise. To unlock it, turn 90 degrees clockwise.



DISPLAYS

Operator display

Customer display (Pop-up type)



Amount: Appears in the far-right eight (max.) positions.

Cashier code: Appears in the second and third positions (two digits).

Clerk code: Appears in the second and third positions (two digits) with "C" in the fifth position.

Number of repeats for repetitive registrations:

The number of repeats is displayed, starting at "2" and incremented with each repeat.

When you have registered ten times, the display will show "0."

Example: (2 → 3 → 4 9 → 0 → 1 → 2 ⋯)

Receipt function status:

The indicator "_" appears in the ninth position when the receipt function is put in the OFF status.

Time: Appears in the second to sixth positions (using 24-hour format) in the OP X/Z, REG, or MGR mode. In the REG, or MGR mode, press the **#** key to display the time.

■ Machine state symbols

- P : Appears in the tenth place during programming.
- E : Appears in the tenth place when an error is detected.
- (Floating): Appears when a minus department or PLU/subdepartment entry is made or when a discount, refund, or void entry is made.
- D : Appears in the tenth place when the subtotal is displayed or when the amount tendered is smaller than the sale amount.
- C : Appears in the tenth place when the **[EX1]** through **[EX4]** key is pressed to calculate a subtotal in foreign currency.
- F : Appears in the tenth place when a transaction is finalized by pressing the **[TL]**, **[CA2]**, **[CH1]** through **[CH4]**, or **[CR1]** through **[CR4]** key.
- C : Appears in the tenth place when the change due amount is displayed or when the cash/cheque declaration is compulsory.
- V : Appears in the tenth place when the validation printing is compulsory.
- U : Appears in the tenth place when the **[∞]** key is pressed in the MGR mode, indicating the entry into the VOID mode. While your register is in the VOID mode, this symbol continues to be in the display except when department codes, PLU codes or subtotals are displayed. Also appears when a subtotal void is made.
- : Appears right below the tenth place when the cash in drawer amount exceeds a programmed sentinel amount. The sentinel check is performed for the total cash in drawer.
Also appears right below the eighth place when the VAT shift is effective.

PRIOR TO PROGRAMMING

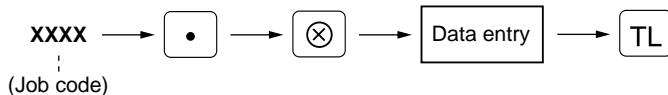
1 General instructions

This chapter illustrates how to program your cash register.

All the programming items can be programmed by the **Job-Code-Based Programming** described later. However, your machine allows you to program some items using the **Direct Programming**, which does not require you to enter the job code.

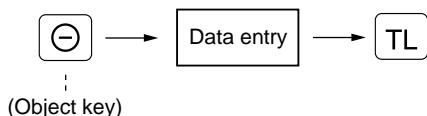
Job-Code-Based Programming

Simplified procedure



Direct Programming

Sample procedure



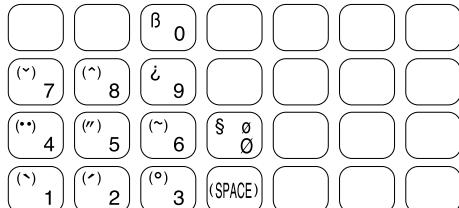
2 How to program alphanumeric characters

You can program alphanumeric characters for departments, PLUs, functions and so on in the character entry mode.

There are two ways for programming characters: using character keys on the keyboard and entering character codes with numeric keys on the keyboard.

■ Using character keys on the keyboard

Enter a character according to the position of the figure shown below.



[Ex.]

- █ — {
- To enter the letter "#", press (SHIFT-2) █ # K
 - To enter the upper-case letter "K", press █ # K
 - To enter the lower-case letter "k", press (SHIFT) █ # K

- Numerals, letters and symbols are programmable simply by pressing the corresponding keys.
- Characters may only be entered in single size or in double size. **By default, the single-size character mode is selected.** To enter a character in double size, press the **(DC)** key before you enter the corresponding character.

Example To program the word “SHARP” in double size, do the following key-in.

(DC) S (DC) H (DC) A (DC) R (DC) P

- Letters of alphabets “A” through “Z”, “Ø” and “Æ” are possible to be entered in lower case or in upper case. **By default, the upper-case letter mode is selected.** To enter a character in lower case, press the **(SHIFT)** key before you enter the character. To return to the upper-case letter mode, press the **(SHIFT)** key again.

Example To program the word “Sharp”, do the following key-in.

S (SHIFT) H A R P

- Symbols and special letters are programmable by using the **(SHIFT-2)** key. To enter a character, press the **(SHIFT-2)** key before you enter the corresponding character.

Example To program letters “# Ä Å” with the letter “#” being double size

(DC) (SHIFT-2) # (SHIFT-2) (••) A (SHIFT-2) (°) A

Editing the characters

You can edit the characters you entered. Pressing a character key replaces the current character with a new one. To edit the characters, use the **(BACK SPACE)** key.

(BACK SPACE): Backs up the cursor, erasing the character to the left.

Entering character codes

- Numerals, letters and symbols are programmable by entering character codes and the **00** key. See the alphanumeric character code table on the next page. In this way, you can program characters other than the characters on the programming key sheet.

XXX → **00** XXX: Character code (3 digits)

- Double-size characters can be made by entering the character code 253.

Example To program the word “SHARP” with the letter “S” being double size

253 **00** 083 **00** 072 **00** 065 **00** 082 **00** 080 **00**
 ↓ ↓ ↓ ↓ ↓ ↓
 S H A R P

Alphanumeric character code table

Code	Character
001	á
002	â
003	ê
004	î
005	ì
006	í
007	ô
008	ó
009	û
010	ú
011	œ
012	ú
013	ú
014	ø
015	ó
016	Λ
017	Ψ
018	Γ
019	“
020	Ω
021	Δ
022	Θ
023	Ξ
024	Π
025	Σ
026	Υ
027	Φ
028	Ú
029	Ú
030	Ó
031	Ó
032	(space)
033	!
034	”
035	#
036	\$
037	%
038	&
039	,
040	(
041)
042	*
043	+
044	,
045	-

Code	Character
046	.
047	/
048	0
049	1
050	2
051	3
052	4
053	5
054	6
055	7
056	8
057	9
058	:
059	;
060	<
061	=
062	>
063	?
064	@
065	A
066	B
067	C
068	D
069	E
070	F
071	G
072	H
073	I
074	J
075	K
076	L
077	M
078	N
079	O
080	P
081	Q
082	R
083	S
084	T
085	U
086	V
087	W
088	X
089	Y
090	Z

Code	Character
091	Ä
092	Ö
093	Ü
094	^
095	—
096	‘
097	a
098	b
099	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	
125	}
126	ß
127	¢
128	!!
129	1
130	2
131	3
132	4
133	1/2
134	F/T
135	←

Code	Character
136	→
137	∞
138	∞
139	◀
140	▶
141	F
142	T
143	↓
144	ç
145	°
146	¿
147	Ù
148	à
149	Æ
150	ø
151	Å
152	¤
153	é
154	è
155	Pt
156	í
157	Ñ
158	ò
159	£
160	¥
161	◦
162	Γ
163	∟
164	ˇ
165	˙
177	Á
178	Í
180	Ā
181	ā
182	Ē
183	ē
184	Ī
185	ī
186	Ū
187	ū
188	Ṅ
189	Ṅ
190	Ṅ
191	Ṅ
192	Ṅ

Code	Character
193	í
194	Ĝ
195	Ŝ
196	Ĝ
197	ĝ
198	Ķ
199	ķ
200	Ļ
201	Ĵ
202	Ž
203	Đ
204	đ
205	Ć
206	ć
207	€
208	₱
209	ˇ
210	ě
211	š
212	č
213	ž
214	ý
215	ú
216	ň
217	ˇ
218	ˇ
219	ř
224	*
225	§
226	Ø
227	^
228	↑
229]
230	[
231	"
232	ä
233	ö
234	ü
235	æ
236	å
237	É
238	ñ
253	*(DC)

*(DC): Double-size character code

PROGRAMMING

Your machine allows you to program in two modes: PGM1 and PGM2. The PGM1 mode is for programming those items that need to be changed often: unit prices of departments/PLUs, and percentages. The PGM2 mode is used for programming all PGM1-mode programs and those items that require less frequent changes: date, time, tax rate, and the functions of each key. We describe below the programming or setting procedures of various items.

Program every item necessary for your store following the appropriate procedures.

* To set the mode switch to the PGM1 position, use the manager or submanager key; and to set to the PGM2 position, use the manager key.

■ Preparations for Programming

1. Plug your machine into a standard wall outlet.
2. Put the manager or submanager key in the mode switch and turn it to the PGM1 or PGM2 position depending upon the programming you are about to do.
3. Check to see whether both journal and receipt rolls are present in the machine. If they are missing, install journal and receipt paper rolls correctly referring to the procedure in "4. Installing and removing the paper roll" under "OPERATOR MAINTENANCE".
4. Program necessary items into your machine.

■ Direct Programming

1 Setting the date and time

■ Date PGM 2

Enter the day (one or two digits), month (two digits), and year (two digits) in this sequence.

Procedure

X X X X X → #
Date (five or six digits)

Example

Aug. 26, 1998

Key operation

260898 #

Print

26/08/98 14:52 000000 #0001 XPGM2X 26/08/98 Date

■ Time PGM 2

Set the time using the 24-hour format. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430. Once you set the time, the internal clock unit will continue to run as long as the built-in battery is alive and update the date (day, month, year) properly.

Procedure

X X X X → #
Time (max. four digits)

Example Setting the time as 2:30 PM (14:30)

Key operation

1430 #

Print

26/08/98 14:30
000000 #0002
XPGM2X
14:30

Time

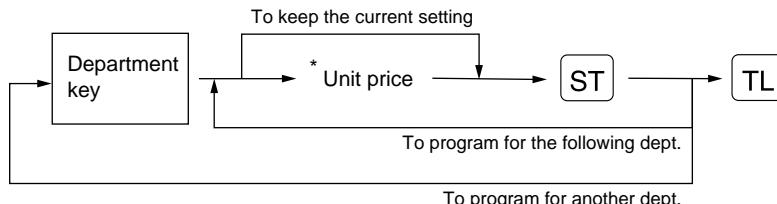
2 Programming for departments

Your machine is equipped with 20 standard departments and up to 50 optional departments.

Your machine allows you to perform the following programming for each department:

■ Unit price PGM 1 PGM 2

Procedure



* Unit price: max. six digits (9999.99)

Example Programming the unit price 10.00 for department 1

1. Press the department 1 key.

1

0 1 0 . 0 0

- The current unit price will be displayed.

2. Enter the unit price "1000."

1000

0 1 1 0 0 0

3. Press the [ST] key to program this setting.

ST

0 2 0 . 0 0

4. Press the [TL] key to finalize the programming and generate a programming report.

TL

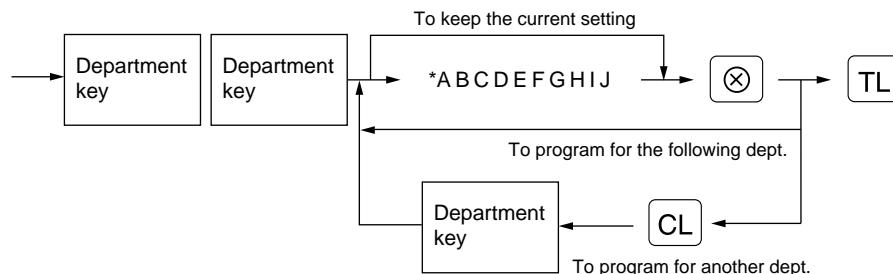
0 . 0 0

XP60M2X	
D01	10.00
DPT.01	G01
0000003	COL17

Dept. code Unit price

■ Functional selection PGM 2

Procedure



* Item:	Selection:	Entry:
A Always enter 0.		0
B VAT6 or TAX6	No	0
	Yes	1
C VAT5 or TAX5	No	0
	Yes	1
D VAT4 or TAX4	No	0
	Yes	1
E VAT3 or TAX3	No	0
	Yes	1
F VAT2 or TAX2	No	0
	Yes	1
G VAT1 or TAX1	No	0
	Yes	1
H Normal/SICS (Single Item Cash Sale)/ SIF (Single Item Finalization)	Normal	0
	SICS	1
	SIF	2
I Significant digit for HALO		1 through 9
J Number of zeros to follow the significant digit for HALO		0 through 7

Note

Tax status

- The tax system of your machine has been factory-set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.
- When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.
Example: BCDEFG= 100100, 110100, 111010

Normal department/SICS (Single Item Cash Sale) / SIF (Single Item Finalization)

- If an entry of a department programmed for SICS is made first, the sale will be finalized as soon as the department key is pressed. If the entry is made after entering a department not programmed for SICS, the sale will not be finalized until the **[TL]** key is pressed.
- Whenever a sale is made to a department set for SIF, the sale is finalized as soon as the department key is pressed.

HALO (High Amount Lockout)

- You can set an upper limit amount (HALO) for each department. The limit is effective for the REG-mode operations and can be overridden in the MGR mode.
- IJ is the same as $I \times 10^J$.

For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 17, however, the upper limit amount is 99999.99.

Example

Programming for department 4 as follows: A=0, B=0, C=0, D=0, E=0, F=0, G=1, H=0, I=9 and J=5.

A B C D E F G H I J

1. Press the department 4 key twice.

[4] [4]

-0:0 0 0 0 0 0 0 1 7

- The current parameter setting will be displayed.

2. Set the parameters as follows:

- You can change the value at the blinker.

Go to the desired position with the following keys:

- Moves the blinker to the right.

-0:0 0 0 0 0 0 0 1 7 → 0:0 0 0 0 0 0 0 1 7

- Moves the blinker to the left.

0:0 0 0 0 0 0 0 1 7 → -0:0 0 0 0 0 0 0 1 7

- Enter the figure.

0000001095 → 0 0 0 0 0 0 1 0 9:5:

3. Press the **[⊗]** key to program this setting.

[⊗]

-0:0 0 0 0 0 0 0 1 7

4. Press the **[TL]** key to finalize the programming and generate a programming report.

[TL]

0 . 0 0

Print

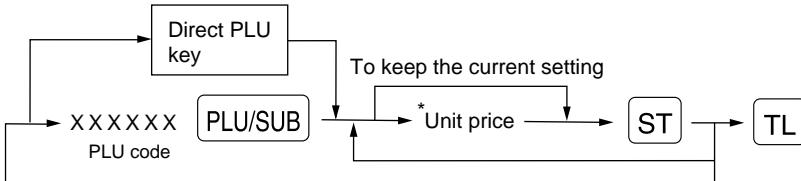
XPGM2X		
		Taxable 1
D04	T1	0.00
DPT.04		G01
0000001		COL95
		HALO limit
Normal dept.		

3 Price lookup (PLU) programming

A PLU code can be up to six digits (free code).

■ Unit price PGM 1 PGM 2

Procedure

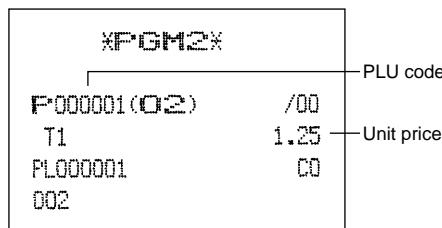


*Unit price: max. six digits (9999.99)

Example Programming the unit price 1.25 for PLU code 1

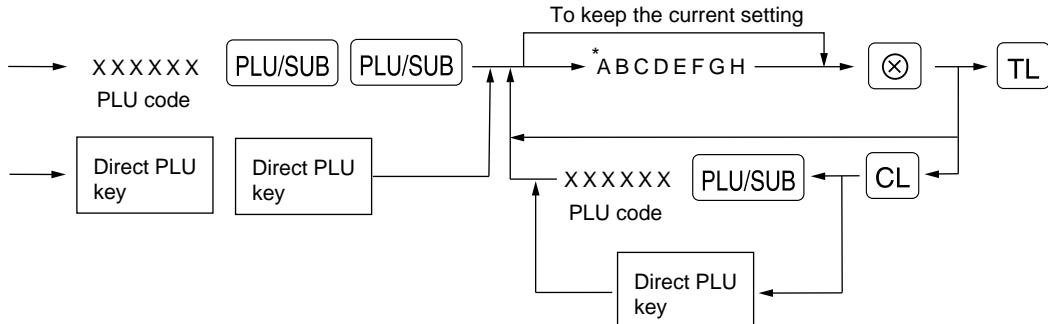
1. Enter the PLU code "1" and press the **PLU/SUB** key. 1 **PLU/SUB** 0 0 0 0 0 1 0 . 0 0
2. Enter the unit price "125" 125 0 0 0 0 1 1 2 5
3. Press the **ST** key to program this setting. **ST** 0 0 0 0 2 0 . 0 0
4. Press the **TL** key to finalize the programming and generate a programming report. **TL** 0 . 0 0

Print



■ Functional selection PGM 2

Procedure



* Item:	Selection:	Entry:
A Sign (plus/minus)	Plus	0
	Minus	1
B VAT6 or TAX6	No	0
	Yes	1
C VAT5 or TAX5	No	0
	Yes	1
D VAT4 or TAX4	No	0
	Yes	1
E VAT3 or TAX3	No	0
	Yes	1
F VAT2 or TAX2	No	0
	Yes	1
G VAT1 or TAX1	No	0
	Yes	1
H Mode	Prohibit mode	0
	Subdepartment mode	1
	PLU mode	2
	PLU/subdepartment mode	3
	Delete mode	4

Note

Sign (plus/minus)

The function of every PLU/subdepartment varies according to the combination of its sign and the sign of its associated department as follows:

Department	Sign		Function of PLU/subdepartment
	PLU/ subdepartment		
+	+	Serves as a normal plus PLU/subdepartment	
-	-	Serves as a normal minus PLU/subdepartment	
+	-	Accepts store coupon entries, but not split-pricing entries	
-	+	Not valid; not accepted	

Tax status

- The tax system of your machine has been factory-set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.
- When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.
Example: BCDEFG= 100100, 110100, 111010
- A PLU not programmed for any of these tax statuses is registered depending on the tax status of the department which the PLU belongs to.

Mode parameter

- PLU mode:** Allows a PLU entry to be made by entering an assigned PLU code and depressing the **PLU/SUB** key.
- Subdepartment mode:** Allows a subdepartment entry to be made by entering a unit price, pressing the **AMT** key, assigned PLU code and then pressing the **PLU/SUB** key.
- PLU/subdepartment mode:** Allows PLU entries to be made in both the PLU and subdepartment modes.
- Delete mode:** Deletes program data for each PLU.
- Prohibit mode:** Prohibits the entry of any assigned PLU code. This mode does not clear the PLU/subdepartment program data.

Example Programming for PLU code 1 as follows: A=0, B=0, C=0, D=0, E=0, F=0, G=1, and H=2.

1. Enter the PLU code "1" and press the **PLU/SUB** key twice.

1 **PLU/SUB** **PLU/SUB**

A B C D E F G H

P	0	0	0	0	0	0	0	2
---	---	---	---	---	---	---	---	---

2. Set the parameters A to H.

00000012

P	0	0	0	0	0	0	1	2
---	---	---	---	---	---	---	---	---

- You can go to the desired position with the **00** or **.** key.

3. Press the **(X)** key to program this setting.

(X)

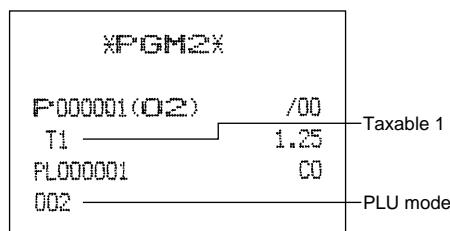
P	0	0	0	0	0	0	0	2
---	---	---	---	---	---	---	---	---

4. Press the **TL** key to finalize the programming and generate a programming report.

TL

0 . 0 0

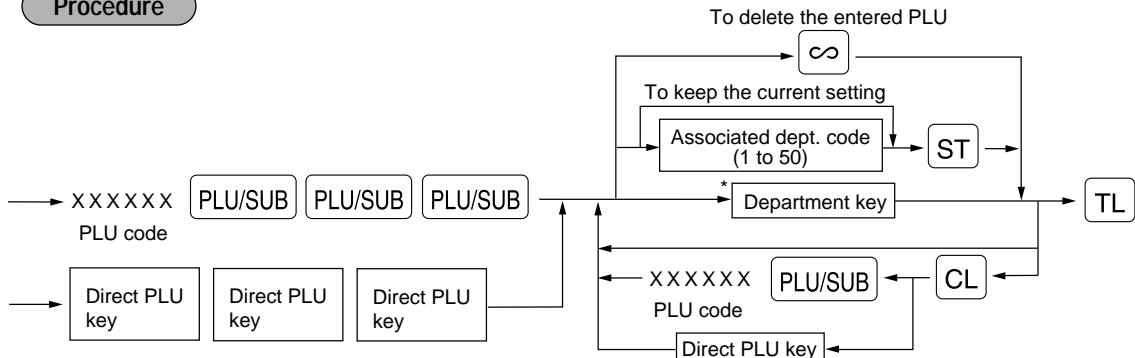
Print



■ PLU assignment to departments

PGM 1 **PGM 2**

Procedure



*Department key to be associated with the entered PLU

- Note**
- The following functions of the PLU depend on the programming for its associated department:
 - Grouping (Group 1 through 14)
 - SICS (Single Item Cash Sale)/SIF (Single Item Finalization)/Normal
 - Item validation print compulsory/non-compulsory
 - HALO (high amount lockout)

Example Assigning PLU codes 1 and 2 to department 2

1. Enter the PLU code "1" and press the **PLU/SUB** key three times.

1 **PLU/SUB** **PLU/SUB** **PLU/SUB**

0	0	0	0	1	0	1
---	---	---	---	---	---	---

2. Press the the department 2 key to assign PLU code 1 to department 2.

2

0	0	0	0	2	0	1
---	---	---	---	---	---	---

3. Press the department 2 key to assign PLU code 2 to department 2.

2

0 0 0 0 3 0 1

4. Press the **TL** key to finalize the programming and generate a programming report.

TL

0 . 0 0

Print

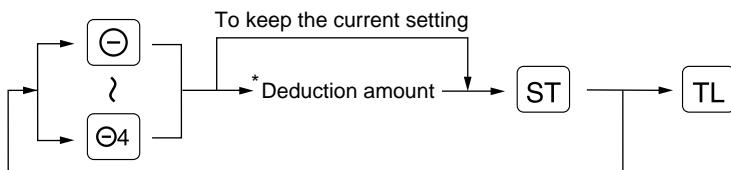
XPGM2X	
P000001(02)	/00
T1	1.25
PL000001	00
002	
P000002(02)	/00
	0.00
PL000002	00
002	

Associated dept.

4 Programming for discount keys

■ Deduction amount (**⊖**) PGM 1 PGM 2

Procedure



*Deduction amount: 0 - 999999

Example Assigning “10.00” to the **⊖** key

1. Press the **⊖** key.

⊖

0 0 1 0 . 0 0

2. Enter the deduction amount “1000.”

1000

0 0 1 1 0 0 0

3. Press the **ST** key to program this setting.

ST

0 0 1 1 0 . 0 0

4. Press the **TL** key to finalize the programming and generate a programming report.

TL

0 . 0 0

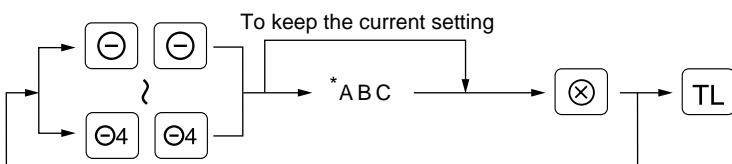
Print

XPGM2X	
F001 <--> 1	
S	-10.00
	Deduction amount
	L17

■ High amount lockout (HALO) and +/- sign (\ominus)

PGM 2

Procedure



* Item:	Selection:	Entry:
A	Sign (plus/minus)	Plus
		Minus
B	Significant digit for HALO	1 through 9
C	Number of zeros to follow the significant digit for HALO	0 through 7

Note

HALO (High Amount Lockout)

BC is the same as $B \times 10^c$.

For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. When you preset 17, however, the upper limit amount is 99999.99.

Example

Programming for the Θ key as follows: A=1 B=1 and C=3

A B C

1. Press the  key twice.
 2. Set the parameters A to C.
 - You can go to the desired position with the  or  key.
 3. Press the  key to program this setting.
 4. Press the  key to finalize the programming and generate a programming report.

-

001 117

113

113

001 113

TL

001 113

113

TL

0 . 0 0

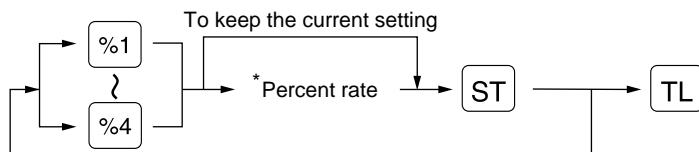
Print

XPGM2X
F001 (->1
S -10.00
L13 HALO limit

5 Programming for percent keys

■ Percent rate (%) PGM 1 PGM 2

Procedure



* Percent rate: 0.00 - 100.00

Note You must use a decimal point when setting percentage rates that are fractional.

Example Assigning 10.25% to the **%1** key

Key operation

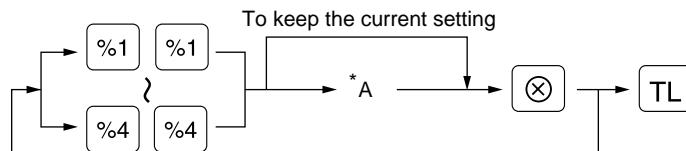
%1 10 **.** 25 **ST**
TL

Print

XPGM2X
F005 %1
S Percent rate
-10.25%
L100.00%

■ Sign (+/-) (%) PGM 2

Procedure



* Item:

A Sign (plus/minus)

Selection:

Plus (premium)

Entry:

0

Minus (discount)

1

Example Programming minus sign for the **%1** key

Key operation

%1 **%1** 1 **(X)**
TL

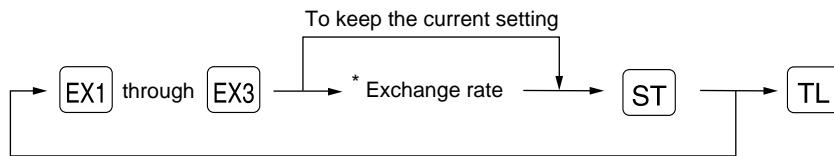
Print

XPGM2X
F005 %1
S Discount
-10.25%
L100.00%

6 Programming for exchange keys

■ Currency exchange rate (**EX**) PGM 1 PGM 2

Procedure



* Currency exchange rate: 0.000000 - 999.999999

Note You must use a decimal point when setting conversion rates that are fractional.

Example Assigning 0.6068 to the **EX1** key

Key operation

EX1 0 . 6068
ST
TL

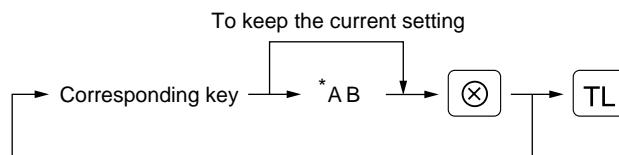
Print

XPGM2X
F052 EXCH1
0.606800
Exchange rate

7 Programming for the **CA2**, **RA**, **PO**, **CH** and **CR** keys

■ High amount lockout (HALO) (**CA2**, **RA**, **PO**, **CH** and **CR**) PGM 2

Procedure



* AB is the same as $A \times 10^B$

A: Significant digit (1 through 9)

B: Number of zeros to follow the significant digit (0 through 8)

Example Programming a HALO limit of 1000.00 (15) for the **CR2** key

Key operation

CR2 15 (X)
TL

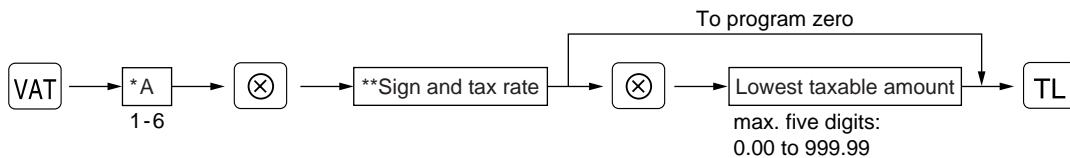
Print

XPGM2X
F049 CREDIT2
L15
0000000
HALO limit

8 Programming the tax rate

Tax rate PGM 2

Procedure



* A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter "1", and when you program it as tax rate 6, enter "6".

** Sign and tax rate: XYYY.YYYY

Tax rate= 0.0001 to 100.0000
Sign $\text{-}/\text{+}$ = 1/0

Note

- The lowest taxable amount is valid only when you select add on tax system. If you select VAT (Value added tax) system, it is ignored.
- If you make an incorrect entry before pressing the second \otimes key in programming a tax rate, cancel it with the CL key; and if you make an error after pressing the second \otimes key, cancel it with the ST key. Then program again from the beginning.
- If you select VAT system, the sign which you program is ignored.

Example Programming the tax rate (+4%) as tax rate 2 with lowest taxable income as 0.12.

1. Press the VAT key.

VAT

P 0 . 0 0

2. Enter the tax rate "2".

2 \otimes

P 0 . 0 0

3. Enter the tax rate "+4%."

4 \otimes

P 0 . 0 0

4. Enter the lowest taxable amount "12."

12

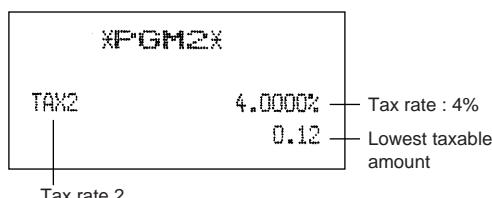
P 1 2

5. Press the TL key to finalize the programming and generate a programming report.

TL

0 . 0 0

Print



Job-Code-Based Programming

This section illustrates how to program items using job codes. Using job codes allows you to program a wide variety of items in comparison with direct programming.

Start this programming by entering a corresponding job code as shown below.



All the items which can be programmed by the job-code-based programming are listed on this page and the following, and those which can also be programmed by the direct programming are marked with the symbol “**Direct**” that follows job codes.

- Note** When setting the parameters for a job code, the digit that is blinking is the one that can be changed.
To go to the position of the parameter that you want to change, press either of the following keys :
• Moves the blinker to the right.
00 Moves the blinker to the left.

1 Setting the date and time

■ Setting the date PGM 2 2610 Direct

Enter day (one or two digits), month (two digits), and year (two digits) in this sequence.

Procedure



Example

Key operation

2610 • [X]
260898 [TL]

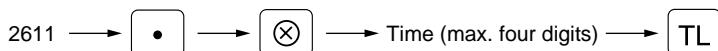
Print

26/08/98 15:03	01
000000 #0001	
Date	#2610 XPGM2X
24/08/98	

■ Setting the time PGM 2 2611 Direct

Set the time using the 24-hour format. For example, when the time is set to 2:30 AM, enter 230; and when it is set to 2:30 PM, enter 1430.

Procedure



Example**Key operation**

2611  
1430 

Print

26/08/98 14:30 01
000000 #0002

#2611 XPGM2X

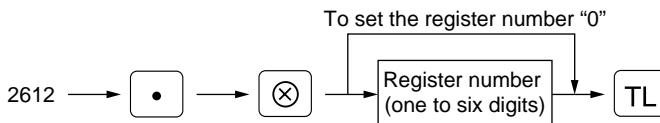
14:30

Time

2 Setting the register and consecutive numbers

■ Setting the register number PGM 2 2612

When your store has two or more registers, it is practical to set separate register numbers for their identification. You may set them in a maximum of six digits.

Procedure**Example****Key operation**

2612  
123456 

Print

26/08/98 14:31 01
123456 #0003

#2612 XPGM2X

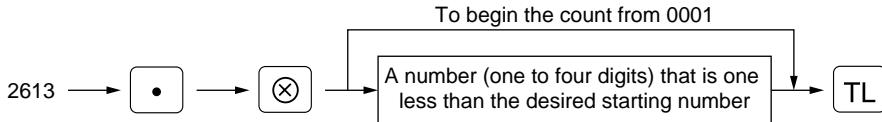
123456

Register number

■ Setting the consecutive number PGM 2 2613

The consecutive number is increased by one each time a receipt is issued.

Enter a number (one to four digits) that is one less than the desired starting number.

Procedure

Example**Key operation**

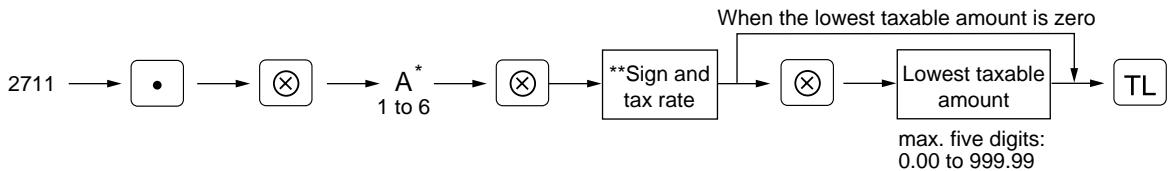
2613
1000

Print

26/08/98 14:32 01
123456 #1000

#2613 XPGM2X
1000

Consecutive number

3 Programming the tax rate**■ The tax rate PGM 2 2711 Direct****Procedure**

*A: Enter a corresponding tax rate number. For example, when you program a tax rate as tax rate 1, enter 1 and when you program it as tax rate 6, enter 6.

** Sign and tax rate: YYYY.YYYY

Tax rate= 0.0001 to 100.0000
Sign -/+ = 1/0

Example**Key operation**

2711
2
4
12

Print

#2711 XPGM2X

TAX2 4.0000%
0.12

Note

- The lowest taxable amount is valid only when you select add on tax system. If you select VAT (Value added system), it is ignored.
- If you make an incorrect entry before pressing the third key in programming a tax rate, cancel it with the key; and if you make an error after pressing the third key, cancel it with the key. Then program again from the beginning correctly.
- If you select VAT system, the sign which you program is ignored.

4 Programming for departments

Your machine is equipped with 20 standard departments and up to 50 optional departments.

Your machine allows you to perform the following programming for each department:

■ Functional programming PGM 2 2110

You can set each department for:

Compulsory item validation print

If item entries must be validated, program corresponding departments for compulsory item validation print.

SICS (Single Item Cash Sale) / SIF (Single Item Finalization)

- SICS

If the first registration is to a department set for SICS, the sale is finalized as soon as the department key is pressed. If the sale is preceded by registrations to departments not set for SICS, a sale to a department set for SICS does not finalize and can be repeated until the **TL** key is pressed.

- SIF

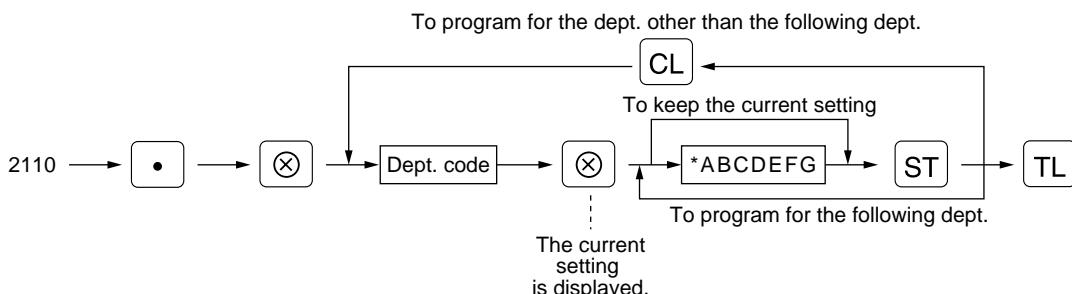
Whenever a sale is made to a department set for SIF, the sale is finalized as soon as the department key is pressed.

Type of unit price entry

You may select one of the following four types of unit price entry for each department.

- Open and preset
- Preset only
- Open only
- Inhibit department key

Procedure



*	Item:	Selection:	Entry:
A	Always enter 0.		0
B	Item validation print	Compulsory	1
		Non-compulsory	0
C and D	Always enter 0.		0
E	SIF/SICS /Normal	SIF	2
		SICS	1
		Normal	0
F	Always enter 0.		0
G	Type of unit price entry	Open and preset	3
		Preset only	2
		Open only	1
		Inhibit department key	0

Example**Key operation****Print**

2110 •
 3 0000003 ST
 TL

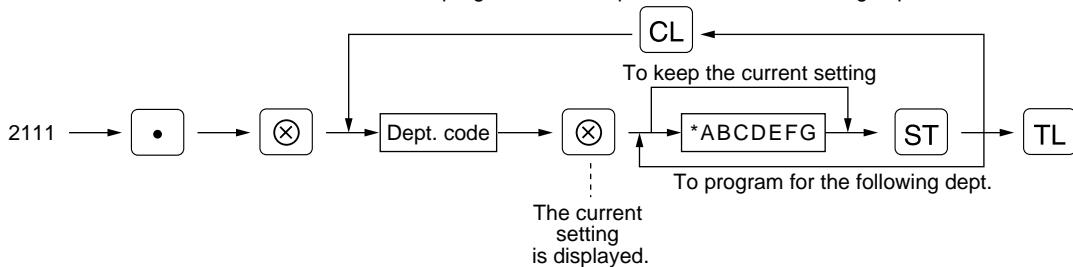
#2110 XPGM2X
 D03 0.00
 DFT.D03 601
 0000003 COL17
 A through G

■ Tax status **PGM 2** **2111** **Direct**

Assign a tax status to each department. When entries are made into taxable departments in a transaction, tax is automatically computed according to the associated tax rate as soon as the transaction is completed.

Procedure

To program for the dept. other than the following dept.



* Item:	Selection:	Entry:
A Always enter 0.		0
B VAT6 or TAX6	Yes	1
	No	0
C VAT5 or TAX5	Yes	1
	No	0
D VAT4 or TAX4	Yes	1
	No	0
E VAT3 or TAX3	Yes	1
	No	0
F VAT2 or TAX2	Yes	1
	No	0
G VAT1 or TAX1	Yes	1
	No	0

Note

- The tax system of your machine has been factory-set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.
- When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.
Example: BCDEFG= 100100, 110100, 111010

Example**Key operation**

2111 • \otimes
 4 \otimes 0000110 ST
 CL 10 \otimes 0000101 ST
 TL

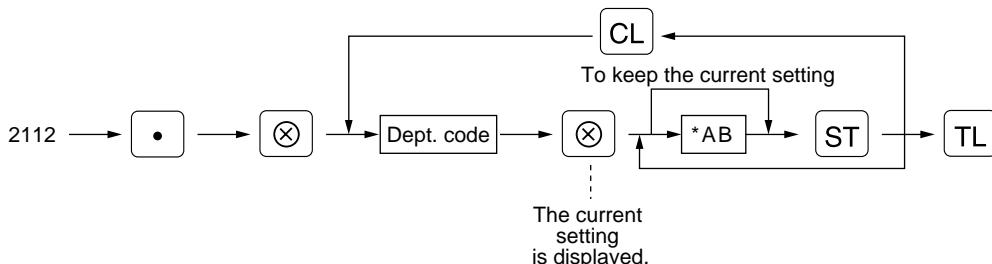
Print

#2111 XPGM2X		
D04	T 23	0.00
DPT.04		601
0000001		COL95
D10	T1 3	0.00
DPT.10		601
0000001		COL17

Tax status

■ A limit amount (HALO) of entry **PGM 2** **2112** **Direct**

You can set upper limit amounts (HALO: High Amount Lockout) for each department. The limit is effective for the REG-mode operations and can be overridden in the MGR mode. HALO limit is represented by two figures as follows:

Procedure

* AB is the same as $A \times 10^B$.

A: Significant digit (1 through 9)

B: Number of zeros to follow significant digit (0 through 7)

For example, presetting 14 (100.00) here means that amount entries of up to 100.00 are allowed in the REG mode. But when you preset 17, the upper limit amount is 99999.99.

Example**Key operation**

2112 • \otimes
 1 \otimes 95 ST
 TL

Print

#2112 XPGM2X		
D01		10.00
DPT.01		601
0000003		COL95

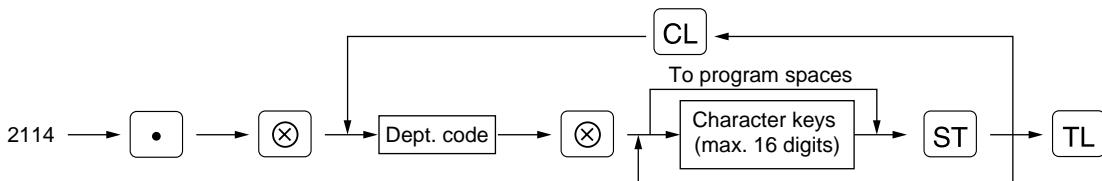
HALO limit

■ Alphanumeric characters PGM 2 2114

You can program a maximum of 16 characters (item label) for each department. (However, the default setting is for a 12-character label.)

Select the characters you want to program, referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING”.

Procedure



Example

Key operation

2114 •
1
STEAK
ST
TL

Print

#2114 XPGM2X

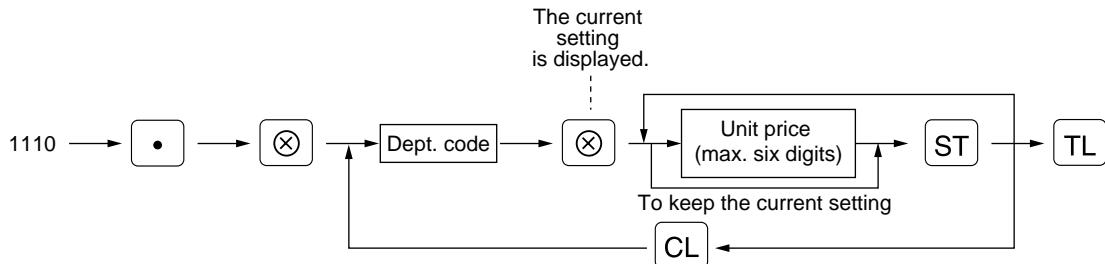
D01	10.00
STEAK	001
0000003	COL95

Label
programmed
for dept. 1

■ Unit price PGM 1 PGM 2 1110 Direct

You can program unit prices up to a maximum of six digits (9999.99). Even if a department is not programmed to allow the entry of preset unit prices in functional programming (job 2110), the department is automatically changed to allow the entry of preset unit prices by this programming entry.

Procedure



Example

Key operation

1110 •
1 X 1000
ST
TL

Print

#1110 XPGM2X

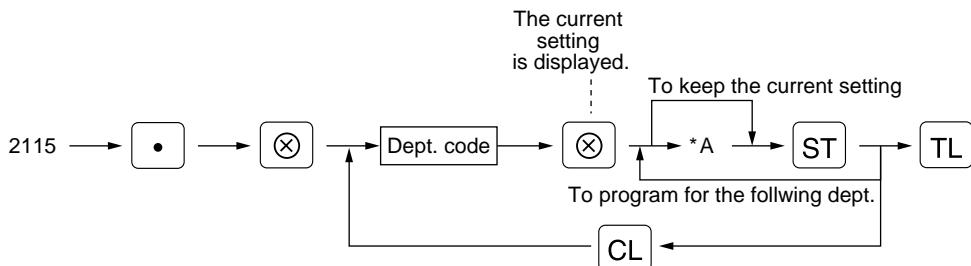
D01	10.00
STEAK	001
0000003	COL95

Unit price

■ Commission group assignment PGM 2 2115

Your machine allows you to assign a commission group (1-9) to each department.

Procedure



* A: Commission group 0-9 (0 = no commission)

Example

Key operation

2115	•	(X)		
1	(X)	1	ST	
CL	5	(X)	2	ST
			TL	

Print

#2115 XPGM2%

D01	10.00
STEAK	G01
0000003	C1L95
D05	0.00
DPT.05	G01
0000001	C2L17

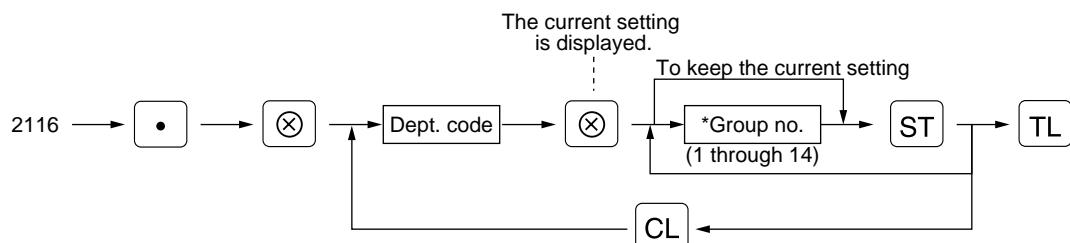
Commission group number

■ Group number PGM 2 2116

You can assign departments to a maximum of 14 groups (1 through 14).

This programming enables you to take group department sales reports.

Procedure



* Group number:	Dept. (+)	1 through 9 (groups 1 through 9)
	Dept. (-)	10
	Hash (+) dept.	11
	Hash (-) dept.	12
	Bottle return (+) dept.	13
	Bottle return (-) dept.	14

Note

The standard model provides no hash dept./bottle return dept. If you need them, please consult your dealer.

Example**Key operation****Print**

2116 • 1 1
2 ST
TL

#2116 XPGM2X	
D01	10.00
STEAK	G01
0000003	C1.95
D02	0.00
DPT.02	G02
0000001	COL17

Group no.

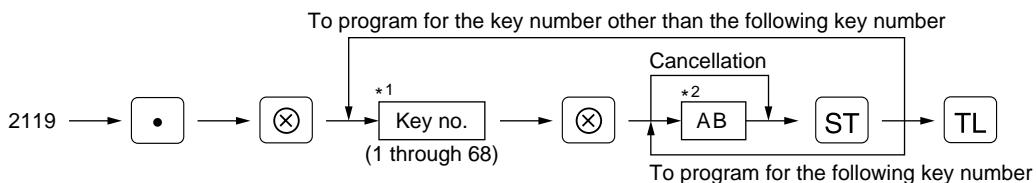
■ Department key positioning PGM 2 2119

You can assign a department number to each key position. Each key position has a corresponding key number.

Departments may be freely selected for the number of department keys and their positions.

To assign the department to a key position, select the key number of the position.

For key number position, refer to section "2 Standard key number layout" in chapter "KEYBOARD".

Procedure

*1 The key number placement is determined by your local Authorized SHARP Dealer.

*2 AB is a department code.

Example**Key operation****Print**

2119 • 1 1
2 ST
TL

#2119 XPGM2X	
001	D01
002	D02

Key no.

Dept. code

5 Price lookup (PLU) programming

Your machine has two kinds of PLU registration methods.

Direct PLU registration: Accomplished by depressing item key (direct PLU key) directly.

Indirect PLU registration: Accomplished by making an entry of PLU code and pressing the **PLU/SUB** key.

Each PLU requires you to program the following:

PLU code (six digits)

Associated department

When a PLU is associated with a department, the following functions of the PLU depend on the programming for the corresponding department.

- Grouping (Group 1 through14)
- HALO (only for the subdepartment)
- Single item cash sale/Single item finalization
- Item validation print compulsory/non-compulsory

Unit price (max. six digits)

You will usually have unit prices programmed for individual PLUs as PLU preset unit prices. If you program unit price "0" for a PLU, you can enter only the selling quantity of the PLU, i.e. the PLU can be used only as a counter.

Base quantity for split-pricing entries - two digits

Program a base quantity for each PLU/subdepartment dedicated to split-pricing entries.

PLU, subdepartment, PLU/subdepartment, delete, or prohibit mode

- If the PLU mode (i.e. automatic preset unit price entry) is selected, individual PLU entries can be made by entering the assigned code and depressing the **PLU/SUB** key (or by depressing a direct PLU key without any PLU code entry).
- If the subdepartment mode is selected, the **AMT** key must be depressed after the price entry followed by the PLU code entry. The entry is finalized by the **PLU/SUB** key depressed.
- If the PLU/subdepartment mode is selected, the entries in both the PLU and subdepartment modes are available.
- If the delete mode is selected, the corresponding program data for each PLU is deleted.
- If the prohibit mode is selected, the assigned PLU code cannot be entered. This mode does not clear the PLU/subdepartment program data.

Sign (+/-)

The function of every PLU/subdepartment varies according to the combination of its sign and its associate department's sign as follows:

Sign		Function of PLU/subdepartment
Dept.	PLU/subdept.	
+	+	Serves as a normal plus PLU/subdept.
-	-	Serves as a normal minus PLU/subdept.
+	-	Accepts store coupon entries, but not split-pricing entries.
-	+	Not valid; not accepted.

Tax status

Item label (12 characters) (option: max. 16 characters)

Commission group (1 to 9)

Link PLU

Any PLU is able to link to any other PLU (e.g. bottle deposit). However, the number of links is a maximum of 5. Even if more than 5 PLUs are linked, the sixth or higher link is not actualized.

Direct PLU key positioning

Note

For some items, you can program in two ways: programming an individual PLU code and for a range of sequential PLU codes. The procedure marked "For each PLU" shows individual PLU programming. "For a range of PLUs" shows sequential range PLU programming.

■ Department assignment

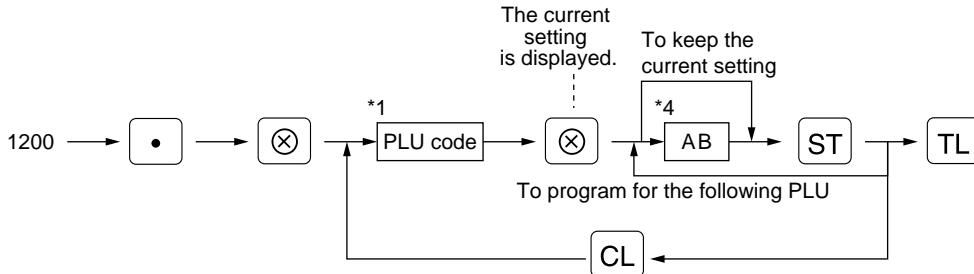
PGM 1

PGM 2

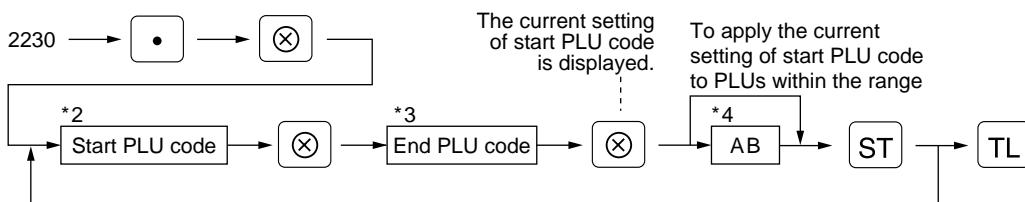
1200

2230

Direct

Procedure**For each PLU****Note**

As soon as the programming is completed for one PLU, the next PLU code appears in the display.

For a range of PLUs

*1, 2, 3: 1 to 999999 (free code)

*4: AB: Associated department code

Example**For each PLU****Key operation**

1200 • (X)
1 (X) 2 ST
2 ST
TL

Print

#1200 XPGM2X	PLU code
P000001(02)	/00
T1	1.25
PL000001	C0
002	
P000002(02)	/00
PL000002	0.00
002	C0

For a range of PLUs**Key operation**

2230 • (X)
11 (X) 20 (X)
3 ST
TL

Print

#2230 XPGM2X	PLU range
P000011 - P000020 (03)	Associated dept.

■ Unit prices

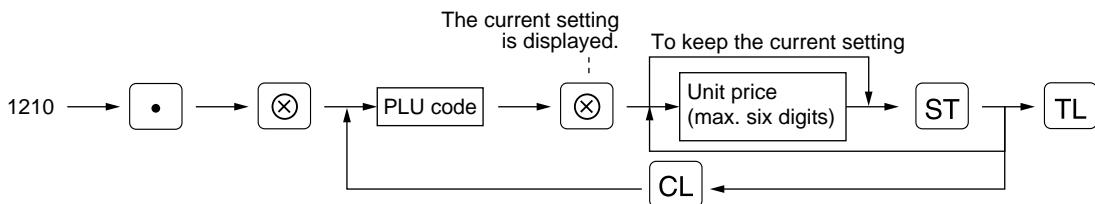
PGM 1

PGM 2

1210

Direct

Procedure



Example

Key operation

1210 • ×
1 × 125 ST
TL

Print

#1210 XPGM2X

P000001(02) /00
T1 1.25 ——————
PL000001 00
002

Unit price

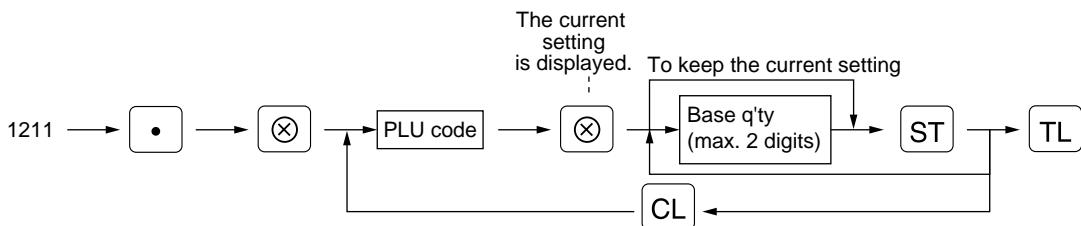
■ Base quantity

PGM 1

PGM 2

1211

Procedure



Example

Key operation

1211 • ×
2 × 12 ST
TL

Print

#1211 XPGM2X

P000002(02) /12
0.00 ——————
PL000002 00
002

Base q'ty

■ PLU/subdepartment mode

PGM 2

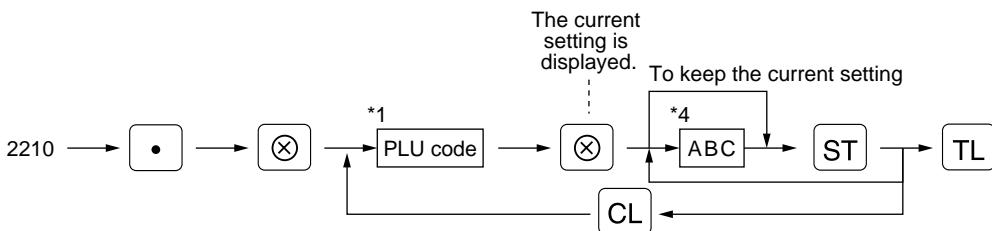
2210

2231

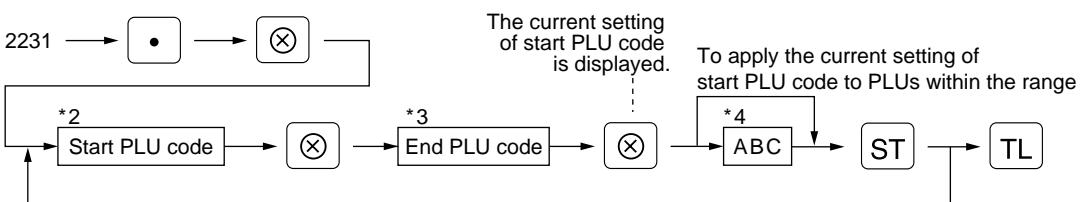
Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 through 999999

*4: Item:

Selection:

Entry:

A and B Always enter 0.

0

C Mode parameter

Prohibit mode

0

Subdept. mode

1

PLU mode

2

PLU/subdept. mode

3

Delete mode

4

Example

For each PLU

Key operation

2210 • (X)
1 (X) 003 ST
TL

Print

#2210 XPGM2X

P000001(02)

/00

T1

1.25

PL000001

00

003

3: PLU/subdept.
mode

For a range of PLUs

Key operation

2231 • (X)
11 (X) 20 (X)
003 ST
TL

Print

#2231 XPGM2X

P000011

-P000020

003

PLU range

3: PLU/subdept.
mode

■ Sign (+/-) and tax status

PGM 2

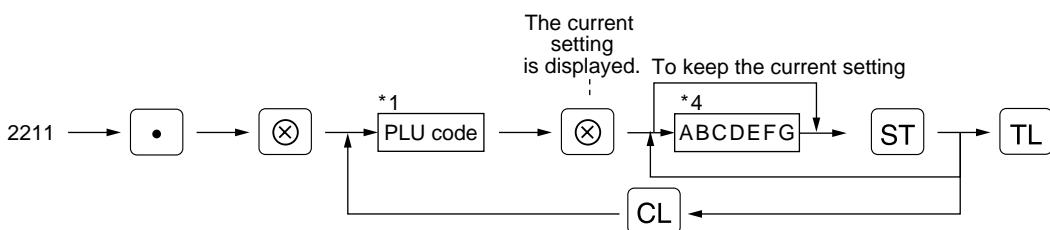
2211

2232

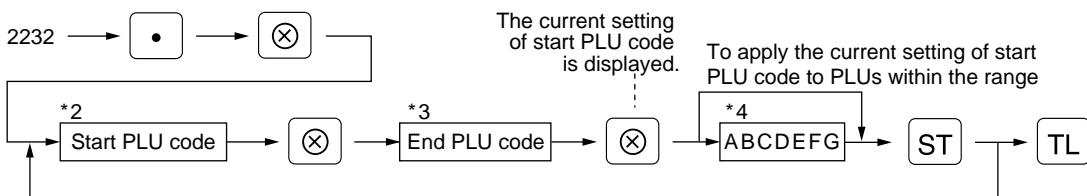
Direct

Procedure

For each PLU



For a range of PLUs



*1,2,3: 1 through 999999

*4: Item:	Selection:	Entry:
A Sign (+/-)	Minus PLU	1
	Plus PLU	0
B VAT6 or TAX6	Yes	1
	No	0
C VAT5 or TAX5	Yes	1
	No	0
D VAT4 or TAX4	Yes	1
	No	0
E VAT3 or TAX3	Yes	1
	No	0
F VAT2 or TAX2	Yes	1
	No	0
G VAT1 or TAX1	Yes	1
	No	0

Note

- The tax system of your machine has been factory-set to automatic VAT1–6. If you desire to select any of automatic tax 1–6, manual VAT1–6, manual VAT1, manual tax 1–6, and the combination of the automatic VAT 1–3 and the automatic tax 4–6, consult your dealer.
- When the combination of the automatic VAT1–3 and automatic tax 4–6 system is selected, one of the VAT1(G), VAT2(F) and VAT3(E) can be selected in combination with tax 4–6.
Example: BCDEFG= 100100, 110100, 111010
- A PLU not programmed for any of these tax statuses is registered depending on the tax status of the department which the PLU belongs to.

Example

For each PLU

Key operation

2211 •
2 (⊗) 0000001 ST
0000000 ST
TL

Print

#2211 XPGM2X

P000002(02)	/12
T1	1.50
PL000002	00
002	
P000003(01)	/00
PL000003	0.00
002	

Taxable 1

For a range of PLUs

Key operation

2232 •
11 (⊗) 20 (⊗)
0000001 ST
TL

Print

#2232 XPGM2X

P000011	-P000020
T1	

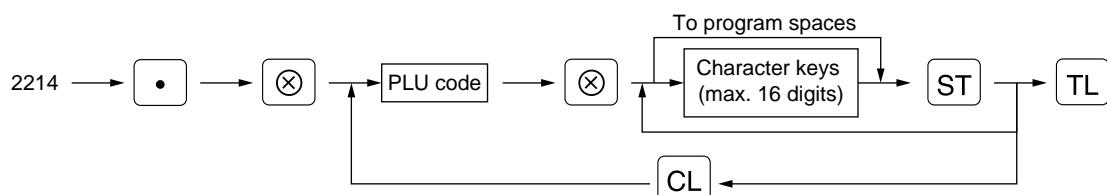
PLU range

Taxable 1

■ Alphanumeric characters PGM 2 2214

You can program a maximum of 16 characters (item label) for each PLU or subdepartment. (However, the default setting is for a 12-character label.) Select the characters you want to program, referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING".

Procedure



Example

Key operation

2214 •
1 (⊗)
MILK ST
TL

Print

#2214 XPGM2X

P000001(02)	/00
T1	1.25
MILK	00
003	

Label programmed for PLU code 1

■ Assigning of PLUs to commission groups

PGM 2

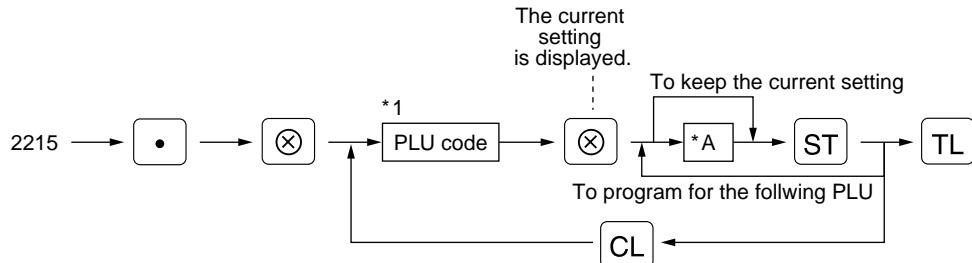
2215

2235

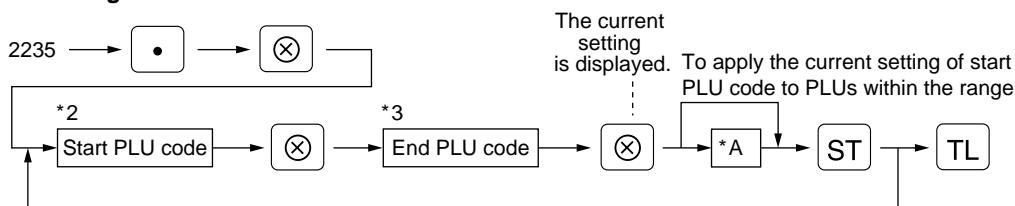
You can assign PLUs (or subdepartments) to commission groups.

Procedure

For each PLU



For a range of PLUs



*1,2,3 : 1 through 999999

*A : Commission group 0-9 (0=no commission)

Example

For each PLU

Key operation

2215 • (X)
1 (X) 1 ST
TL

Print

#2215 XPGM2X

P000001(02) /00
T1 1.25
MILK C1
003

Commission group number

For a range of PLUs

Key operation

2235 • (X)
12 (X) 14 (X)
1 ST
TL

Print

#2235 XPGM2X

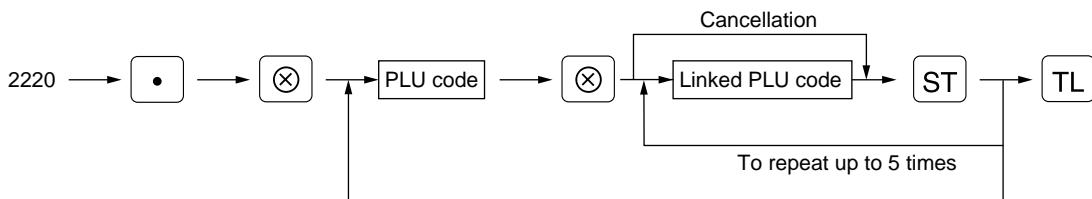
P000012 -P000014 C1

PLU range

Commission group number

■ Link PLU PGM 2 2220

Procedure



Note

- PLU codes must have already been defined.

Example

Key operation

2220 • (X)
21 (X) 25 ST
26 ST
27 ST
TL

Print

#2220 XPGM2X

P000021

L_P000025

P000026

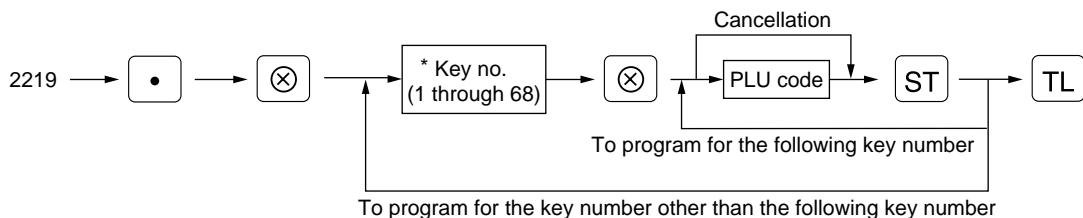
P000027

Linked
PLU code

■ Direct PLU key positioning PGM 2 2219

You can assign a PLU code to each key position. PLUs may be selected for the number of direct PLU keys and their positions. For key number positions, refer to section “2 Standard key number layout” in the chapter “KEYBOARD”.

Procedure



* The key number placement is determined by your local Authorized SHARP Dealer.

Example

Key operation

2219 • (X)
16 (X)
1 ST
TL

Print

#2219 XPGM2X

016

P000001

Key no.
PLU code

6 Programming for miscellaneous keys

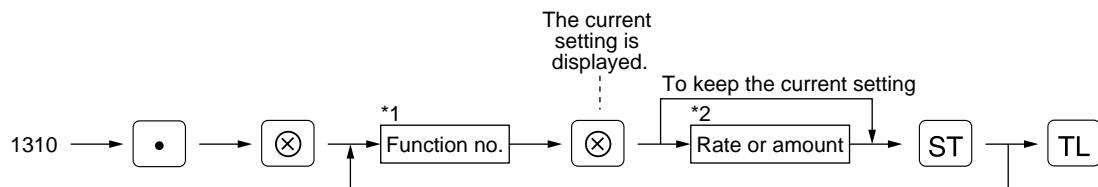
Only function keys which you have programmed on the keyboard will be allowed the rate, HALO and tax status programming.

■ Programming the rate (%, EX, commission) and the deduction (⊖) PGM 1

PGM 2 1310 Direct

You can program percent rates, currency exchange rates, deduction amounts and commission rates.

Procedure



*1: Function no.

- | | | |
|-------------------------------|-------------------------------|-------------------------------|
| 1: For the \ominus key | 8: For the $\frac{\%}{4}$ key | 74: For the commission sale 4 |
| 2: For the \ominus_2 key | 52: For the EX_1 key | 75: For the commission sale 5 |
| 3: For the \ominus_3 key | 53: For the EX_2 key | 76: For the commission sale 6 |
| 4: For the \ominus_4 key | 54: For the EX_3 key | 77: For the commission sale 7 |
| 5: For the $\frac{\%}{1}$ key | 71: For the commission sale 1 | 78: For the commission sale 8 |
| 6: For the $\frac{\%}{2}$ key | 72: For the commission sale 2 | 79: For the commission sale 9 |
| 7: For the $\frac{\%}{3}$ key | 73: For the commission sale 3 | |

*2: Rate or amount

- 0 — 999999 (Deduction amount)
0.00 — 100.00 (% rate)
0.000000 — 999.999999 (Currency exchange rate)
0.00 — 999.99 (Commission rate)

Example

Key operation

1310 • \ominus
1 \ominus_1 1000 ST
5 \ominus_2 10 • 25 ST
52 \ominus_3 0 • 6068 ST
TL

Print

#1310 XPGM2X	
F001	\leftrightarrow 1
S	-10.00
L17	Deduction amount
F005	$\frac{\%}{1}$
S	-10.25%
L100.00%	Percent rate
F052	EXCH1
	0.606800
	Currency exchange rate

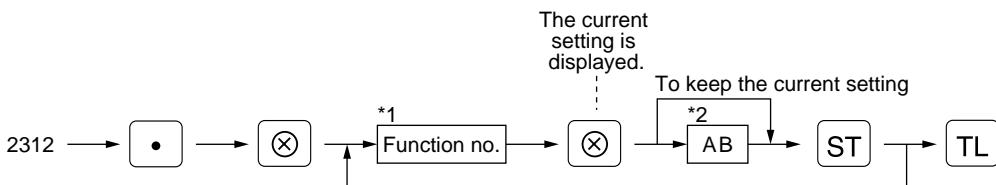
Note

You must use a decimal point when setting percentages rates that are fractional.

■ A limit amount (HALO) of entry (⊖, RA, PO) PGM 2 2312 Direct

The HALO limit is in effect for the REG-mode operations but can be overridden in the MGR mode. The HALO limit is represented by two figures as follows:

Procedure



*1: Function no.

- | | |
|-------------------------------|---------------------------------|
| 1: For the ⊖ key | 37: For the RA key |
| 2: For the ⊖ ₂ key | 38: For the RA ₂ key |
| 3: For the ⊖ ₃ key | 39: For the PO key |
| 4: For the ⊖ ₄ key | 40: For the PO ₂ key |

*2: AB is the same as A × 10^B.

A: Significant digit (0 through 9)

B: Number of zeros to follow significant digit

0 through 7 (for the ⊖ through ⊖₄ keys)

0 through 8 (for the RA, RA₂, PO, and PO₂ keys)

For example, presetting 13 (10.00) here means that amount entries of up to 10.00 are allowed in the REG mode.

You can set up AB = 17 for no limitation (for the ⊖ through ⊖₄ keys).

You can set up AB = 18 for no limitation (for the RA, RA₂, PO, and PO₂ keys).

Example

Key operation

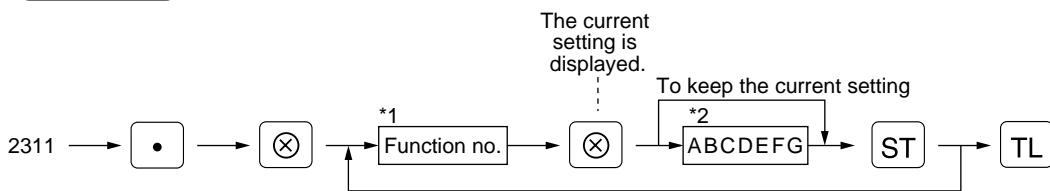
2312 • (⊗)
1 (⊗) 13 ST
TL

Print

#2312 XPGM2X
F001 ←→ 1
S -10.00
L13 HALO limit

Programming of the +/- sign assigns the premium or discount function for each key.

Procedure



*1: Function no.

- | | |
|----------------------------|-----------------------|
| 1: For the \ominus key | 5: For the $\%_1$ key |
| 2: For the \ominus_2 key | 6: For the $\%_2$ key |
| 3: For the \ominus_3 key | 7: For the $\%_3$ key |
| 4: For the \ominus_4 key | 8: For the $\%_4$ key |

*2:

Item:	Selection:	Entry:
A +/- sign	+ (premium) sign	0
	- (discount) sign	1
B to G Always enter 0.		0

Example

Key operation

2311 \bullet \otimes
 5 \otimes 0000000 ST
 6 \otimes 1000000 ST
 TL

Print

#2311 XPGM2X
 F005 %1
 S 10.25%
 L100.00%
 F006 %2
 S -15.00%
 L100.00%

"-": Discount

■ Item % or subtotal % selection (%) PGM 2 2315

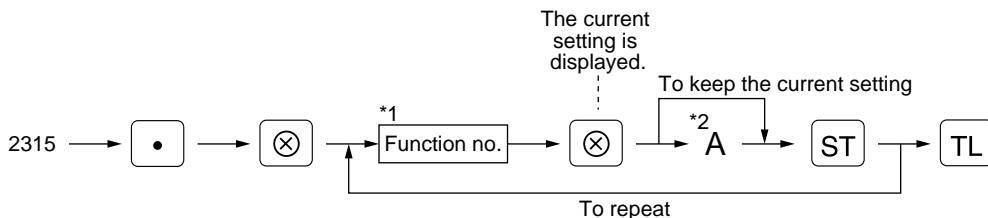
Item %

Select this when a percent calculation is desired for the individual department and PLU.

Subtotal %

Select this when a percent calculation is desired for subtotals.

Procedure



*1: Function no.

- 5: For the $\frac{\%}{\text{key}}$ key
- 6: For the $\frac{\%}{\text{key}}$ key
- 7: For the $\frac{\%}{\text{key}}$ key
- 8: For the $\frac{\%}{\text{key}}$ key

*2: A

- 0: Subtotal %
- 1: Item %

Example

Key operation

2315 •
5 X 1 ST
6 X 0 ST
TL

Print

#2315 XPGM2X

F005 %1
I 10.25%
L100.00%

F006 %2
S -15.00%
L100.00%

Item %

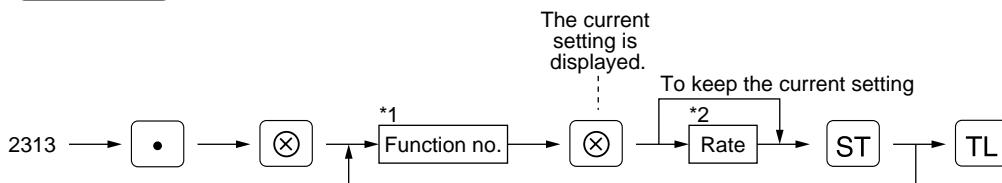
Subtotal %

■ Percent rate limitation (%) PGM 2 2313

You can program the upper limit of percent rates for percent entries.

(Percent entries that exceed the upper limit may be overridden in the MGR mode.)

Procedure



*1: Function no.

- 5: For the $\frac{\%}{\text{key}}$ key
- 6: For the $\frac{\%}{\text{key}}$ key
- 7: For the $\frac{\%}{\text{key}}$ key
- 8: For the $\frac{\%}{\text{key}}$ key

*2: Rate

0.00 – 100.00 (Entering 0.00 inhibits the open percent rate entry.)

Note 10.00% can be entered as [1] [0] or [1] [0] [•] [0] [0]. The [•] key is needed only for fractional entry.

Example**Key operation**

2313 •
 5 15 • 00

Print

#2313 XPGM2X

F005 %1

I

10.25%

L 15.00%

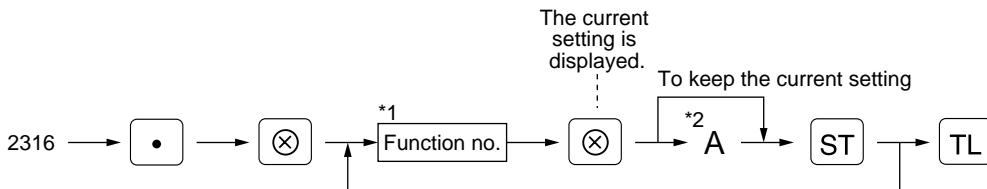
Percentage limit

■ Item ⊖ or subtotal ⊖ selection (⊖) PGM 2 2316**Item ⊖**

Select this when a deduction calculation is desired for the individual department and PLU.

Subtotal ⊖

Select this when a deduction calculation is desired for subtotals.

Procedure

*1: Function no.

- 1: For the key
- 2: For the key
- 3: For the key
- 4: For the key

*2: A

- 0: Subtotal ⊖
- 1: Item ⊖

Example**Key operation**

2316 •
 1 1 ST
 2 0 ST

Print

#2316 XPGM2X

F001 ←→ 1

I

-10.00

L13

Item⊖

F002 ←→ 2

S

-0.00

L17

Subtotal⊖

7 Programming for the **TL**, **CA2**, **CH1** through **CH4**, and **CR1** through **CR4** keys

■ Functional programming PGM 2 2320

You can set each media for:

EFT Transaction

For **CH1** through **CH4** keys, and **CR1** through **CR4** keys

Footer printing

This programming decides whether or not your machine should print a message at the foot of a receipt when a specified media key is used.

Non-add code compulsory

You can enforce the non-add code entry when a media entry is accepted.

Change enable (over-tender)

Either change enable or disable can be selected for a corresponding media key.

Compulsory validation print

If media entries must be validated, set the corresponding media for compulsory validation print.

Drawer open

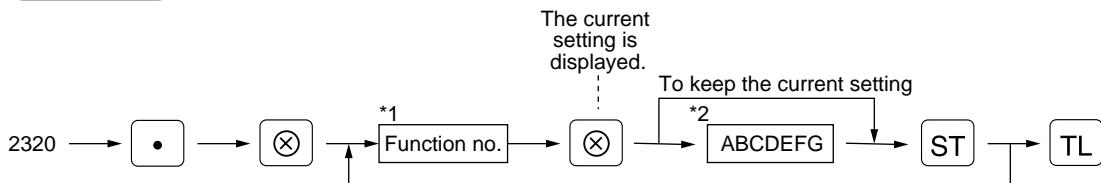
You can program each media key to or not to open the drawer.

Amount tendered compulsory

You may select amount tendered compulsory or optional for the **TL**, **CA2** and **CH1** through **CH4** keys.

You may select amount tendered compulsory or inhibited for the **CR1** through **CR4** keys.

Procedure



*1: Function no.

- 42: For the **TL** key
43: For the **CA2** key
44: For the **CH1** key
45: For the **CH2** key

- 46: For the **CH3** key
47: For the **CH4** key
48: For the **CR1** key
49: For the **CR2** key

- 50: For the **CR3** key
51: For the **CR4** key

*2 Item:

	Selection:	Entry:
A EFT transaction	Compulsory	1
	Non-compulsory	0
B Footer print	Yes	1
	No	0
C Non-add code	Compulsory	1
	Non-compulsory	0
D Change due	Disable	1
	Enable	0
E Validation print	Compulsory	1
	Non-compulsory	0
F Drawer open	No	1
	Yes	0
G Amount tendered entry	Compulsory	1
	Non-compulsory for TL, CA2 or CH1 through CH4 keys	0
	Inhibit for the CR1 through CR4 keys	0

Example**Key operation**

2320
 50 0000001

Print

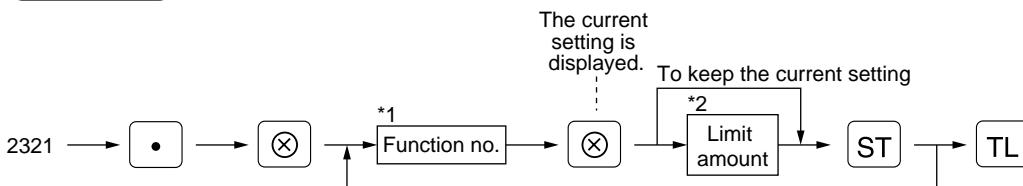
#2320 XPGM2X

F050 CREDITS L18
 0000001

A through G

■ High amount lockout (HALO) for cheque change, cheque cashing, and cash in drawer PGM 2 2321

You can program the upper limit amounts for cheque change, cheque cashing, and cash in drawer.

Procedure

- *1: Function no.
- 41: For cheque cashing
- 62: For cheque change
- 59: For cash in drawer (Sentinel)

- *2: Limit amount
- 0 through 999999.99
- (Cheque change and cheque cashing)
- 0 through 9999999.99 (Cash in drawer)

Example**Key operation**

2321
 41 9999

Print

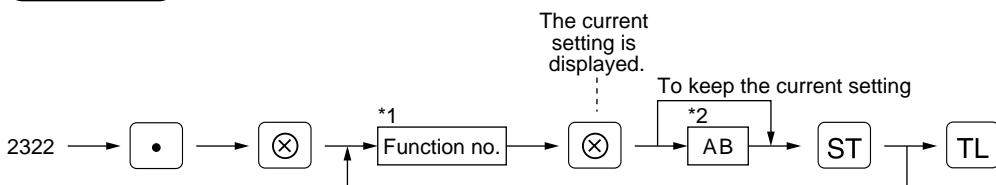
#2321 XPGM2X

F041 CA/CHK

99.99 — HALO limit

■ High amount lockout (HALO) of entry for media keys PGM 2 2322 Direct

The HALO limit is in effect for REG-mode operations but can be overridden in the MGR mode. The HALO limit is represented by two figures as follows:

Procedure

- *1: Function no.
- 42: For the key
- 43: For the key
- 44: For the key
- 45: For the key
- 46: For the key
- 47: For the key

- *2: AB is the same as A x 10^B.
 A: Significant digit (1 through 9)
 B: Number of zeros to follow significant digit (0 through 8)

You can set up AB = 18 for no limitation.

Example**Key operation**

2322 •
 50 15

Print

#2322 #PGM2#

F050 CREDIT3

L15

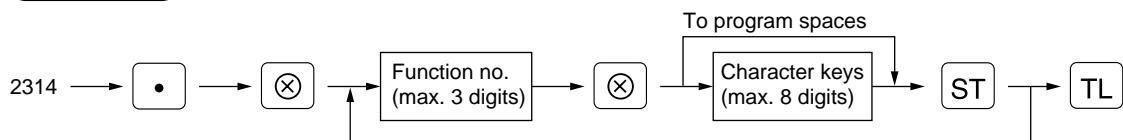
0000001

HALO limit

8 Programming of function text

■ Programming PGM 2 2314

You can program a maximum of 8 characters for each function key and other functions using the table on the following pages. Select the characters you want to program referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Procedure

* Function no.: See “List of function texts” on the following pages.

Example**Key operation**

2314 •
 48 VISA

Print

#2314 #PGM2#

F048 VISA

L18

0000000

■ List of function texts

Function no.	Key or function	Default setting
1	\ominus 1	(-1)
2	\ominus 2	(-2)
3	\ominus 3	(-3)
4	\ominus 4	(-4)
5	%1	%1
6	%2	%2
7	%3	%3
8	%4	%4
9	Differ	DIFFER
10	Taxable 1 subtotal	TAX1 ST
11	Taxable 2 subtotal	TAX2 ST
12	Taxable 3 subtotal	TAX3 ST
13	Taxable 4 subtotal	TAX4 ST
14	Taxable 5 subtotal	TAX5 ST
15	Taxable 6 subtotal	TAX6 ST
16	VAT/tax 1	VAT 1
17	VAT/tax 2	VAT 2
18	VAT/tax 3	VAT 3
19	VAT/tax 4	VAT 4
20	VAT/tax 5	VAT 5
21	VAT/tax 6	VAT 6
22	Net 1	NET1
23	Net 2	NET2
24	Coupon-like PLU	CP PLU
25	Refund	REFUND
26	∞	∞
27	∞ mode total	∞ MODE
28	MGR ∞	MGR ∞
29	Subtotal ∞	SBTL ∞
30	Hash ∞	HASH ∞
31	Hash refund	HASH RF
32	VAT shift	VAT SFT
33	VAT/tax delete	TAX DELE
34	VP counter	VP CNT
35	No sale	NO SALE
36	Guest check counter	G.C. CNT
37	RA	***RA
38	RA2	***RA2
39	PO	***PO
40	PO2	***PO2
41	Cheque cashing	CA/CHK
42	Cash	CASH
43	Cash 2	CASH2
44	Cheque 1	CHECK
45	Cheque 2	CHECK2
46	Cheque 3	CHECK3
47	Cheque 4	CHECK4

Function no.	Key or function	Default setting
48	Credit 1	CREDIT1
49	Credit 2	CREDIT2
50	Credit 3	CREDIT3
51	Credit 4	CREDIT4
52	Exchange 1	EXCH1
53	Exchange 2	EXCH2
54	Exchange 3	EXCH3
55	Exchange 4	EXCH4
56	Exchange 1 is	EXCH1 IS
57	Exchange 2 is	EXCH2 IS
58	Exchange 3 is	EXCH3 IS
59	Cash in drawer	**** CID
60	Cash/cheque is	CA/CH IS
61	Cash/cheque in drawer	CA/CH ID
62	Change for cheque	CHK/CG
63	Customer	GUEST
64	Order total	ORDER TL
65	Paid total	PAID TL
66	Domestic currency 1	DOM.CUR1
67	Domestic currency 2	DOM.CUR2
68	Domestic currency 3	DOM.CUR3
69	Domestic currency 4	DOM.CUR4
70	Cheque in drawer	*CH ID
71	Commission sale 1	COM.SAL1
72	Commission sale 2	COM.SAL2
73	Commission sale 3	COM.SAL3
74	Commission sale 4	COM.SAL4
75	Commission sale 5	COM.SAL5
76	Commission sale 6	COM.SAL6
77	Commission sale 7	COM.SAL7
78	Commission sale 8	COM.SAL8
79	Commission sale 9	COM.SAL9
80	Non commission sale	NON.COM
81	(+) Dept total	*DEPT TL
82	(-) Dept total	DEPT (-)
83	Hash (+) total	*HASH TL
84	Hash (-) total	HASH (-)
85	Bottle return (+) total	*BTTL TL
86	Bottle return (-) total	BTTL (-)
87	Net 1 (Taxable 1 - VAT/tax 1)	NET 1
88	Net 2 (Taxable 2 - VAT/tax 2)	NET 2
89	Net 3 (Taxable 3 - VAT/tax 3)	NET 3
90	Net 4 (Taxable 4 - VAT/tax 4)	NET 4
91	Net 5 (Taxable 5 - VAT/tax 5)	NET 5
92	Net 6 (Taxable 6 - VAT/tax 6)	NET 6
93	Subtotal	SUBTOTAL
94	Merchandise subtotal	MDSE ST

Function no.	Key or function	Default setting
95	Difference subtotal	DIFF ST
96	Total	***TOTAL
97	Change	CHANGE
98	Sales q'ty	ITEMS
99	PLU subtotal	PLU ST
100	Copy receipt title	COPY
101	Guest check copy title	G.C COPY
102	Average	AVE.
103	Group 1 for departments	GROUP01
104	Group 2 for departments	GROUP02
105	Group 3 for departments	GROUP03
106	Group 4 for departments	GROUP04
107	Group 5 for departments	GROUP05
108	Group 6 for departments	GROUP06
109	Group 7 for departments	GROUP07
110	Group 8 for departments	GROUP08
111	Group 9 for departments	GROUP09
112	CCD	CCD
113	CCD differ	CCD DIF.
114	CCD differ total	DIF. TL
115	Order total-Paid total	O - P
116	Total tax	TTL TAX
117	Net without tax	NET

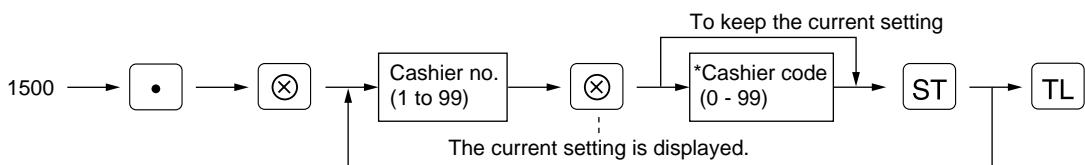
Function no.	Key or function	Default setting
118	Commission amount 1	COM.AMT1
119	Commission amount 2	COM.AMT2
120	Commission amount 3	COM.AMT3
121	Commission amount 4	COM.AMT4
122	Commission amount 5	COM.AMT5
123	Commission amount 6	COM.AMT6
124	Commission amount 7	COM.AMT7
125	Commission amount 8	COM.AMT8
126	Commission amount 9	COM.AMT9
127	Commission amount total	COM.TTL
128	Department report title	DEPT
129	Group report title	GROUP
130	PLU report title	PLU
131	Transaction report title	TRANS.
132	Total in drawer report title	TL-ID
133	Clerk report title	CLERK
134	Cashier report title	CASHIER
136	Hourly report title	HOURLY
137	Daily net report title	DAILY
138	PLU zero sales report title	ZERO SAL
139	PLU price category report title	CATEGORY
140	Commission sales report title	SALES

9 Cashier and clerk programming

■ Cashier code PGM 1 PGM 2 1500

You can assign a cashier code to each cashier. (If the cashier's file is upgraded, a maximum of 99 cashiers can be programmed. Consult your dealer.)

Procedure



* Programming cashier code "0" inhibits entries of the cashier code.

Example

Key operation

Print

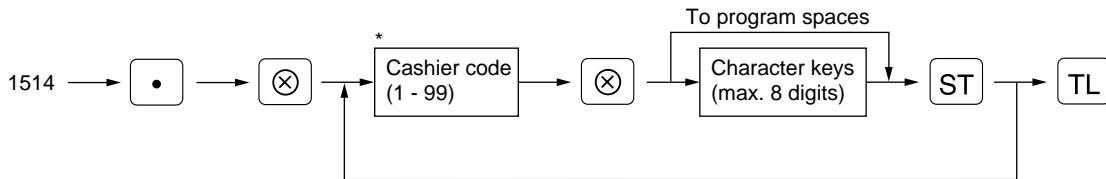
1500 • (X)
1 (X) 11 ST
4 (X) 14 ST
TL

#1500 XPGM2X	Cashier no.
01CSR#	11
	Cashier code
000001	
04CSR#	14
000001	

■ Cashier name PGM 1 PGM 2 1514

You can program a maximum of 8 characters (cashier name) for each cashier. Select the characters you want to program referring to section "2 How to program alphanumeric characters" in chapter "PRIOR TO PROGRAMMING."

Procedure



*: A cashier code you have programmed for the cashier by job code 1500

Example

Key operation

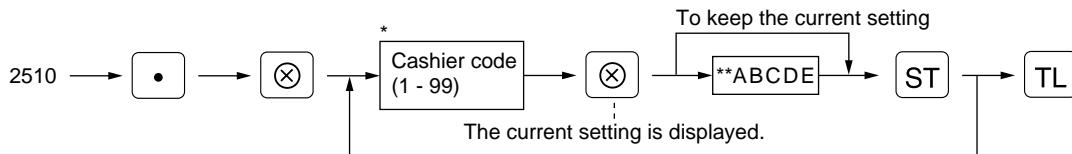
1514 • (⊗)
11 (⊗) MAYER
ST
TL

Print

#1514 XPGM2X	
01CSR#	11
MAVER	0000D1

■ Functional programming for cashiers PGM 2 2510

Procedure



*: A cashier code you have programmed for the cashier by job code 1500

** Item:

Selection:

Entry:

A	Guest check copy	Disable	1
		Enable	0
B	VAT shift	Yes	1
		No	0
C and D	Always enter 0.		0
E	Drawer	Set the drawer no. 1 or 2	1 or 2
		Use no drawer	0

Example

Key operation

2510 • (⊗)
11 (⊗) 00001
ST
TL

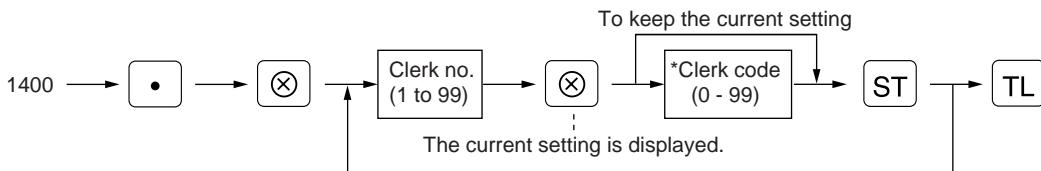
Print

#2510 XPGM2X	
01CSR#	11
MAVER	0000D1
E(Drawer no.)	
A through D	

■ Clerk code PGM 1 PGM 2 1400

You can assign a clerk code to each of 99 clerks. The standard machine has no clerk function. If you need this function, consult your dealer.

Procedure



*: Programming clerk code “0” inhibits entries of the clerk code.

Example

Key operation

1400 [•] [(X)]
1 [(X)] 11 [ST]
4 [(X)] 14 [ST]
[TL]

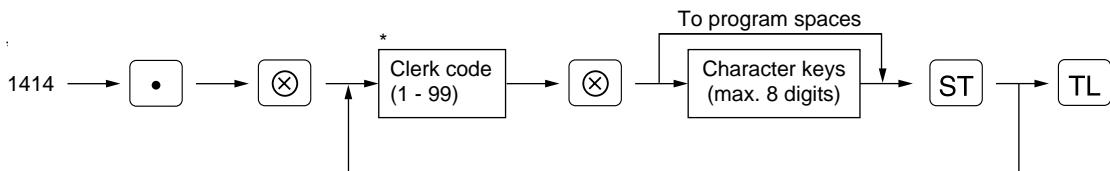
Print

#1400 XPGM2X	Clerk no.
01CLK#	11
04CLK#	14

■ Clerk name PGM 1 PGM 2 1414

You can program a maximum of 8 characters (clerk name) for each clerk. Select the characters you want to program referring to section “2 How to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Procedure



*: A clerk code you have programmed for the clerk by the job code 1400

Example

Key operation

1414 [•] [(X)]
11 [(X)] NILS [ST]
[TL]

Print

#1414 XPGM2X	
01CLK#	NILS
	11

10 Programming various functions

■ Programming for optional feature selection PGM 2 2616

OP X/Z mode availability

When a cashier needs to take the cashier/clerk X or Z report, he or she will use the OP X/Z mode. This programming determines whether he or she will be allowed to use this mode.

Note You can take cashier/clerk X and Z reports in the X1/Z1 mode regardless of the above programming.

Paid out in the REG-mode

Refund key in the REG-mode

Direct void in the REG-mode

Indirect void in the REG-mode

Subtotal void in the REG-mode

Refund validation printing

First item direct void

Printing of the number of purchased items

Journal print form

You may choose either of the following forms.

- Detailed journal print that shows the details of all entries - the same information as printed on the receipt.
- Summary journal print that shows information about all entries other than normal department entries (entries into "+" departments and their associated "+" PLUs).

Item validation print

Validation print for ⊖ entry

Zero skip for various reports

VAT/tax amount, taxable amount and net amount printing on the receipt/journal

VAT shift type

VAT shift by cashier: VAT shift is performed by the operation of a cashier who has been assigned to do the VAT shift operation (Refer to job# 2510).

VAT shift by shift key: VAT shift is performed by pressing the VAT shift key.

No sale in REG-mode

Finalization when the subtotal amount is zero in the REG mode

Printing of the exchange 1 total amount and change amount on the receipt/journal

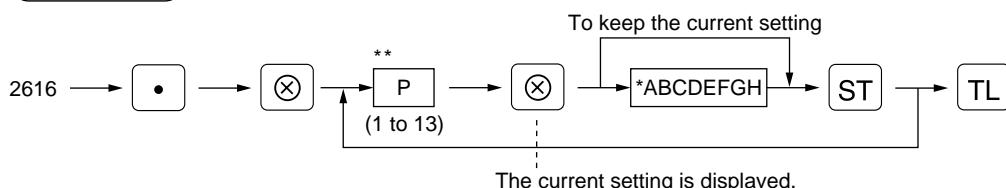
Total and change amounts in exchange 1 currency are printed respectively below each of the total and exchange amounts in domestic currency.

Credit counting when received-on-account/paid out finalized with the credit key

Separator line in the report

Link PLU printing on the receipt

Procedure



**P: 1

*

Item:	Selection:	Entry:
A OP X/Z mode	Enable	0
	Disable	1
B Paid-out in REG-mode	Enable	0
	Disable	1
C Always enter 0.		0
D Refund key entry in the REG-mode	Enable	0
	Disable	1
E Direct void in the REG-mode	Enable	0
	Disable	1
F Indirect void in the REG-mode	Enable	0
	Disable	1
G Subtotal void in the REG-mode	Enable	0
	Disable	1
H Refund validation printing	Non-compulsory	0
	Compulsory	1

**P: 2

*

Item:	Selection:	Entry:
A The first item direct void	Enable	0
	Disable	1
B and C Always enter 0.		0
D Printing of the number of purchased items	No	0
	Yes	1
E Always enter 0.		0
F Journal print form	Detailed	0
	Limited	1
G Item validation printing	Enable	0
	Disable	1
H ⊖ validation printing	Non-compulsory	0
	Compulsory	1

**P: 3

*

Item:	Selection:	Entry:
A Always enter 0.		0
B Zero skip in clerk report	Yes	0
	No	1
C Zero skip in cashier report	Yes	0
	No	1
D Zero skip in transaction report	Yes	0
	No	1
E Zero skip in department report	Yes	0
	No	1
F Zero skip in PLU report	Yes	0
	No	1
G Zero skip in hourly report	Yes	0
	No	1
H Zero skip in daily net report	Yes	0
	No	1

**P: 4

*

Item:	Selection:	Entry:
A and B Always enter 0.		0
C VAT/tax amount printing on the receipt/journal	Yes	0
	No	1
D Taxable amount printing on the receipt/journal	Yes	0
	No	1
E Net amount printing on the receipt/journal	Yes	0
	No	1
F to H Always enter 0.		0

**P: 5

*

Item:	Selection:	Entry:
A to C Always enter 0.		0
D VAT shift type	By cashier	0
	By shift key	1
E to H Always enter 0.		0

**P: 6 (ABCDEFGH: Always enter 0.)

**P: 7

*

Item:	Selection:	Entry:
A and B Always enter 0.		0
C No sale in REG-mode	Enable	0
	Disable	1
D Finalization in the REG-mode when the subtotal amount is zero	Enable	0
	Disable	1
E to H Always enter 0.		0

**P: 8 (ABCDEFGH: Always enter 0.)

**P: 9

*

Item:	Selection:	Entry:
A to C Always enter 0.		0
D Printing exchange 1 total amount and change amount on receipt and journal	No	0
	Yes	1
E to H Always enter 0.		0

**P: 10 to 12 (ABCDEFGH: Always enter 0.)

**P: 13

*

Item:	Selection:	Entry:
A Credit counting when received-on-account/paid out is finalized with the credit key	Yes	1
	No	0
B Separator line in the report	Separator line	1
	1 line space	0
C Way to print the information for the link PLU on the receipt	Leading link PLU with total amount	1
	Each PLU	0
D to H Always enter 0.		0

Example**Key operation**

2616 • 3 00000010

Print

#2616 XPGM2X
03 00000010

P: 1 through 13
A through H

■ Programming the limit on the number of times of validation printing and feed line after printing of a difference subtotal

PGM 2 2615

Procedure

* A: Validation printing counter (1 through 9 times)

To inhibit validation printing, enter 0.

B: Feed lines after printing of difference subtotal (0 through 9)

Example**Key operation**

2615 • 10

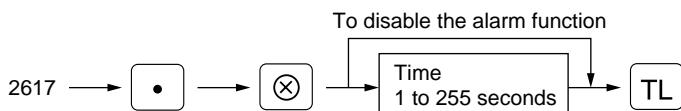
Print

#2615 XPGM2X
10

■ Programming alarm length of time with drawer opening

PGM 2 2617

If the drawer still remains open when a specified length of time has elapsed, your machine gives the alarm.

Procedure**Example****Key operation**

2617 • 30

Print

#2617 XPGM2X
030

Note

Your machine starts to monitor how long the drawer is kept open the moment the drawer is opened at the end of a transaction in the REG/VOID mode. It stops the time monitoring when a valid key (except the **VP** and **RCPT** keys) is pressed for the next transaction. It restarts the time monitoring after that transaction is ended. You can stop the buzzer alarm by closing the drawer. No key entries can be made while the buzzer is sounding.

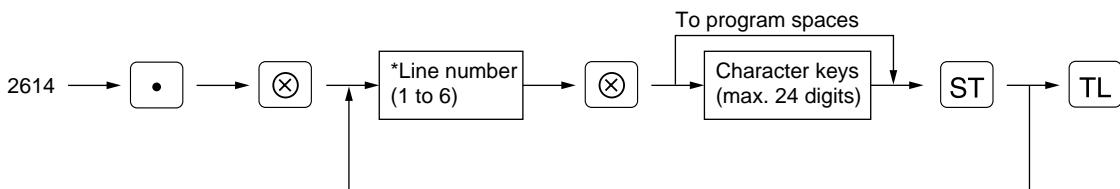
■ Programming of print messages

PGM 2

2614

Your register can print programmed messages for customers on every receipt.

Procedure



* “Header 3-line message” type: 1 to 3

“Footer 3-line message” type : 4 to 6

“Header 6-line message” type: 1 to 6

“Header 3-line and footer 3-line message” type: 1 to 6 (1 to 3 as header, 4 to 6 as footer)

A maximum of 6 lines are available. The type of printing “header 3-line message” is available for the standard model. The line numbers you select are according to the four types of printing: default setting, “header 3-line message” type, “footer 3-line message” type, “header 6-line message” type and “header 3-line and footer 3-line message” type. If you want to change the type of printing, please consult your dealer.

Select the characters you want to program, referring to section “2 how to program alphanumeric characters” in chapter “PRIOR TO PROGRAMMING.”

Example

To program the following logo messages by using 3 lines:

==== YOUR ===
== STORE ==
MESSAGE

Key operation	
2614	• (X) [SPACE] [SPACE] [SPACE] (SHIFT-2) = (SHIFT-2) = [SPACE]
1 (X) [SPACE] [SPACE] [SPACE] (DC) Y (DC) O (DC) U (DC) R	(SPACE) (SHIFT-2) = (SHIFT-2) = (SHIFT-2) = ST
2 (X) [SPACE] [SPACE] [SPACE] (DC) S (DC) T (DC) O (DC) R (DC) E	(SPACE) (SHIFT-2) = (SHIFT-2) = [SPACE]
3 (X) [SPACE] [SPACE] [SPACE] (DC) M (DC) E (DC) S (DC) S (DC) A (DC) G (DC) E	(DC) ST TL ([SPACE]:Space key)

Print

#2614 XPGM2X

==== YOUR ===
== STORE ==
MESSAGE

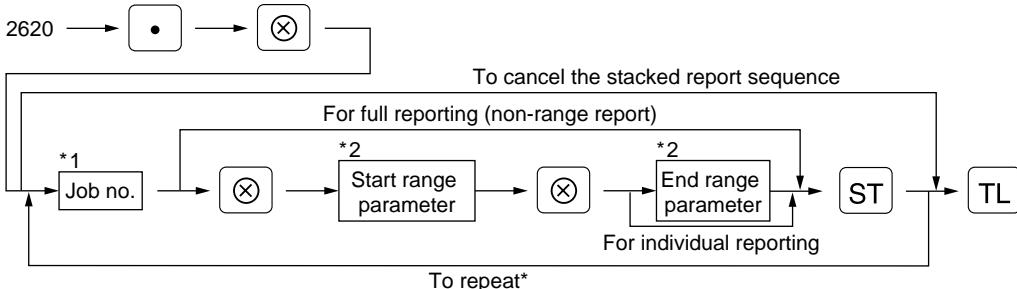
■ Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence

PGM 2

2620

Your register is equipped with the stacked report printing function that enables multiple X/Z reports to be printed in sequence with only a single request, up to maximum of 13 reports*. This function continuously prints a maximum of 13 kinds of reports with a single operation.

Procedure



*: Maximum 70 steps are programmable. "1 step" means the memory size used for one no-range type job no. The range type job no. needs "8 steps".

Job code numbers to be used are as follows.

Job no.	Report	Available mode	Range parameter
00	General report		
10	Full department report	X1/X2 mode only	
13	Full department group report	X1/X2 mode only	
20	PLU report		*3 Start PLU code/end PLU code (1 through 999999)
27	PLU zero sales report	X1/X2 mode only	
29	PLU price category report	X1/X2 mode only	*3 Start price amount/end price amount
30	Transaction report	X1/X2 mode only	
31	Total in drawer report	X1/X2 mode only	
32	Commission sales report		
40	Full clerk report		
50	Full cashier report		
60	Hourly sales information	Range report is available only in the X1 mode.	*3 Start time/end time (0 through 2330)
70	Daily net report	X1/X2 mode only	

*3: Both range setting and full setting are allowed.

Note When Z of stacked report is initiated, X only reports will be skipped.

Example

Key operation

2620 [•] [X]
10 [ST]
13 [ST]
[TL]

Print

#2620 XPGM12X

10
13

■ Setting the time range for hourly reports

PGM 2

2619

You can set the time range for an hourly report.

Procedure



*A: Time range

To set the time range to 30 minutes (in the 24-hour system), enter 0.

To set the time range to 60 minutes (in the 24-hour system), enter 1.

BC: Starting time (hour = 00 to 23)

Example

Key operation

2619
107

Print

#2619 XPGM2X

1 07

Note

To perform this setting, an hourly Z report (# 160) must be done.

■ RS-232C channel assignment

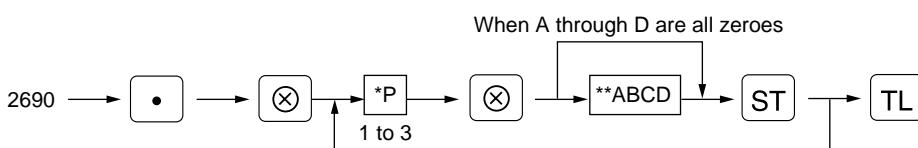
PGM 2

2690

Your machine is equipped with an RS-232C interface. If you use the on-line communication function, the channel number of the RS-232C interface must be programmed by using the following procedure.

To realize the on-line communication, consult your dealer.

Procedure



*P: 1

** Item:

A For the ON-LINE communication

Selection:

Entry:

0

Enable (enter the channel number)

8

B to D Always enter 0.

0

*P: 2 and 3 (ABCD: Not used. Always enter 0.)

Example

Key operation

2690
1

Print

#2690 XPGM2X

1 0000

P

A through D

■ Secret codes to control access to PGM1 mode, X1/Z1 mode and X2/Z2 mode

PGM 2

2630

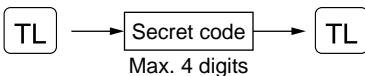
2631

2632

You must enter a secret code according to the following procedure before performing any PGM1-mode, X1/Z1-mode or X2/Z2-mode operation when a secret code has been set for that specific mode operation.

Operating

Procedure

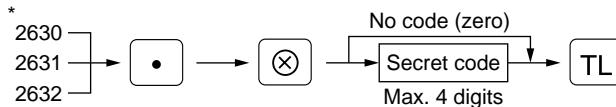


Note

Once a secret code is entered, it does not need to be entered again unless the mode switch setting is changed and any operation, such as a sales registration, reporting, or programming, is performed.

Programming

Procedure



* 2630 for the PGM1 mode

2631 for the X1/Z1 mode

2632 for the X2/Z2 mode

Example

Key operation

2631 •
1234

Print

#2631 XPGM2X
1234

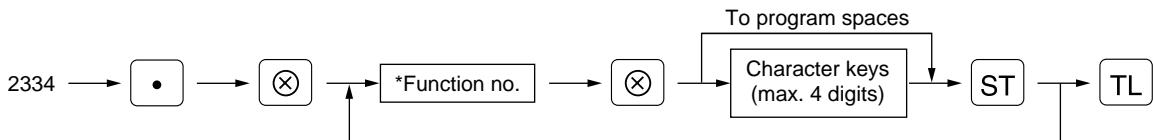
■ Currency description text programming

PGM 2

2334

You can program a maximum of 4 characters for each of the through keys.

Procedure



*Function no.:

52: For the

53: For the

54: For the

55: For the

Example**Key operation**

2334 •
 52
 DM ST
 TL

Print

#2334 XPGM2X
 F052 EXCH1 0M
 0.000000

■ Assigning the drawer number to the drawer for foreign currency PGM 2 2680

You can assign a number of the drawer which opens when one of the following operations is performed.

- One of through is pressed without any entry.
- A transaction is completed with a payment entry of foreign currency.
- An X/Z report is issued.

Procedure

2680 → → → *Drawer no. →

*Drawer no.:

- 0: Inhibit (No drawer opens.)
 1: Drawer no. 1
 2: Drawer no. 2

Example**Key operation**

2680 •
 2 TL

Print

#2680 XPGM2X

2

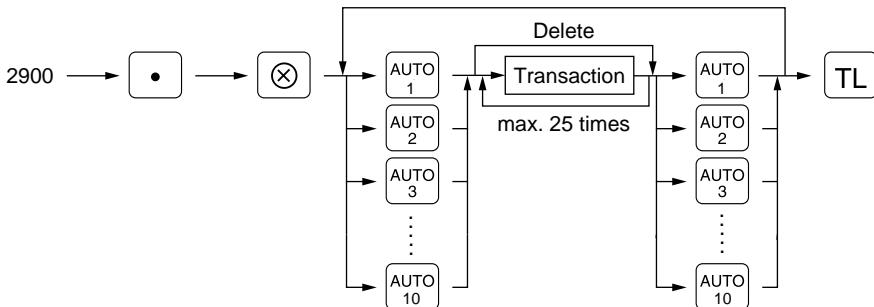
Note

To perform this programming, an optional drawer must be connected with your register.

■ Setting the AUTO key — Automatic sequencing key — X2/Z2 2900

If you program frequently performed transactions or report sequences for the AUTO keys, you can call those transactions and/or reports simply by pressing the corresponding AUTO keys in key operations. This programming can be done when your machine is in the X2/Z2 mode.

Procedure



Example

Programming for **AUTO₁** key and **AUTO₂** key as follows:

AUTO₁: entering a PLU 2 item (programmed unit price: 1.50) and a dept. 6 item (unit price: 1.00)
AUTO₂: selling a dept. 7 item (programmed unit price: 5.00) for cash

Key operation

2900 • X
AUTO1 → 2 PLU/SUB 100 6
setting
AUTO2 → 7
setting

Print

#2900 XPGM2X
#01
2 KEY
PLU
1 KEY
0 KEY
0 KEY
D06
#02
D07
TOTAL

Note

When the AUTO key has been programmed to execute a report job function etc., the mode switch must be in the appropriate position (X1/Z1 or X2/Z2).

11 Reading stored programs

Your machine allows you to read every program stored in the PGM1 and PGM2 modes.

■ Program details and procedures for their reading

Program for:		Mode switch position	Job code no.	Procedure	Related PGM1/ PGM2 job code nos.
1	Departments	PGM2 or PGM1	1100	<pre> graph TD A[1100] --> X1[X] X1 --> B["For reading all codes"] B --> C["Start dept. code"] C --> D[X] D --> E["End dept. code"] E --> F[TL] </pre>	1110, 2110, 2111, 2112, 2114, 2115, 2116
2	PLUs/ subdepartments	PGM2 or PGM1	1200	<pre> graph TD A[1200] --> X2[X] X2 --> B["For reading all codes"] B --> C["Start PLU code"] C --> D[X] D --> E["End PLU code"] E --> F[TL] </pre>	1200, 1210, 1211, 2210, 2211, 2214, 2215, 2230, 2231, 2232, 2235
3	Key nos. for departments and PLUs	PGM2	2119	→ 2119 → [X] → TL	2119, 2219
4	Link PLUs	PGM2	2220	<pre> graph TD A[2220] --> X3[X] X3 --> B["For reading all codes"] B --> C["Start PLU code"] C --> D[X] D --> E["End PLU code"] E --> F[TL] </pre>	2220
5	Cashiers	PGM2 or PGM1	1500	→ 1500 → [X] → TL	1500, 1514, 2510
6	Clerks	PGM2 or PGM1	1400	→ 1400 → [X] → TL	1400, 1414
7	Function preset 1	PGM2 or PGM1	1300	→ 1300 → [X] → TL	1310, 2311, 2312, 2313, 2314, 2315, 2316, 2320, 2321, 2322, 2334
8	Function preset 2	PGM2	2600	→ 2600 → [X] → TL	2614, 2615, 2616, 2617, 2619, 2620, 2630, 2631, 2632, 2680, 2690
9	Tax rates	PGM2	2700	→ 2700 → [X] → TL	2711
10	Auto keys	PGM2	2900	→ 2900 → [X] → TL	2900

■ Sample printouts

1 Reading of programmed items for departments (Reading in the PGM1 and PGM2 modes)

	31/08/98 7:21	11
	123456 #1436	MAVER
	11 NILS	
Job code no.	#1100 XPGM2X	Mode switch position*
Range	01-20	
Dept. code	D01 T1 10.00	Tax status
Item label	G01	Unit price
	0000003 C1L95	Group no.
	D02 1.50	HALO limit.
	DPT.02 602	Commission group
	0000003 COL17	
	D03 0.00	
	DPT.03 601	
	0000003 COL17	
	D04 T1 0.00	Function programming
	DPT.04 601	
	0000001 COL95	
	D19 0.00	Type (SIF/SICS/Normal)
	DPT.19 601	
	0000001 COL17	
	D20 -0.00	Item validation print compulsory/non-compulsory
	DPT.20 G14	
	0000001 COL17	Minus department

2 Reading of programmed items for PLUs/subdepartments (Reading in the PGM1 and PGM2 modes)

	31/08/98 16:23	11
	123456 #1570	MAVER
	12 BETH	
PLU code	#1200 XPGM2X	Mode switch position*
Item label	000001-999999	Range
	P000001(02) /00	Associated dept. code
	T1 1.25	Unit price
	MILK C1	Tax status
	003	
	P000002(02) /12	Base q'ty
	T1 1.50	
	PL000002 C0	
	002 [0.02]	Mode parameter
	P000003(03) /00	
	0.00	
	PL000003 C1	Commission group
	002	
	P000004(01) /00	
	0.00	
	PL000004 C0	
	002	
	P000020(03) /00	
	T1 0.00	
	PL000020 C0	
	003	
	P000021(01) L 3.50	Link PLU
	PL000021 C0	
	002	
	P000025(01) /00	
	3.00	
	PL000025 C0	
	002	

* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

**3 Reading of programmed key nos. for departments and PLUs
(Reading in the PGM2 mode)**

31/08/98 7:36	11
123456 #1443	MAVER
11 NILS	
#2119 XPGM2X	
001	D01
002	D02
003	D03
004	D04
005	D05
006	D06
007	D07
008	D08
009	D09
010	P00001
011	D11
012	D12
013	D13
014	D14
015	D15
016	P00001
017	D17
018	D18
019	D19
020	D20
021	----
022	----
023	----
024	----
025	----
026	----
027	----
028	----
029	----
030	----
031	----
032	----
033	----
034	----
035	----
036	----
066	
067	----
068	----

**4 Reading of programmed items for link PLUs
(Reading in the PGM2 mode)**

31/08/98 16:39	11
123456 #1571	
#2220 XPGM2X	
000001-999999	Range
P000021	L_P000025
	P000026
	P000027

**5 Reading of programmed items for cashiers
(Reading in the PGM1 and PGM2 modes)**

31/08/98 7:37	11
123456 #1444	MAVER
11 NILS	
#1500 XPGM2X	Mode switch position*
01CSR#	11 Cashier code
Cashier name	0000D1 Drawer no.
MAVER	02 VAT shift yes/no
02DSR#	0000D1 Guest check copy yes/no
03CSR#	03
04CSR#	000001
	000001

**6 Reading of programmed items for clerks
(Reading in the PGM1 and PGM2 mode)**

31/08/98 7:49	11
123456 #1451	MAVER
11 NILS	
#1400 XPGM2X	Mode switch position*
01CLK# NILS	11 Clerk code
Clerk name	02CLK# BETH 12
	03CLK# 03
	04CLK# 14

* When you take this report in the PGM1 mode, the PGM2 indication is replaced by a "PGM1".

7 Reading of programmed items for functions - 1 (Reading in the PGM1 and PGM2 modes)

31/08/98	7:50	11
123456 #1452	MAVER	
11 NILS		
#1300 XPGM2X		Mode switch position*
F001	<--> 1	
I	-10.00	L13
F002	<--> 2	
S	-0.00	L17
F005	Z1	
S	-10.00%	L 15.00%
F006	Z2	
I	15.00%	L100.00%
F010	TAX1 ST	
F011	TAX2 ST	
F012	TAX3 ST	
F013	TAX4 ST	
F014	TAX5 ST	
F015	TAX6 ST	
F016	VAT 1	
F017	VAT 2	
F018	VAT 3	
F019	VAT 4	
F020	VAT 5	
F021	VAT 6	
F022	NET1	
F023	NET2	
F024	CP PLU	
F025	REFUND	
F026	¤	
F027	¤ MODE	
F028	MGR ¤	
F029	SBTL ¤	
F032	VAT SFT	
F033	TAX DELE	
F034	VP CNT	
F035	NO SALE	
F036	G.C. CNT	
F037	XXXRA	L18
F039	XXXPD	L18

Mode switch position*

F041	CA/CHK	99.99
F042	CASH	L18
		0000000
F044	CHECK	L18
		0000000
F045	CHECK2	L18
		0000000
F048	CREDIT1	L18
		0000000
F049	CREDIT2	L15
		0000000
F050	CREDIT3	L15
		0000001
F052	EXCH1	0.606800
F053	EXCH2	0.000000
F055	EXCH4	
F059	XXXXCID	9999999.99
F061	CA/CH ID	
F062	CHK/C6	999999.99
F063	GUEST	
F064	ORDER TL	
F065	PAID TL	
F066	DOM.CUR1	
F067	DOM.CUR2	
F069	DOM.CUR4	
F070	XCH ID	
F071	COM.SAL1	
		0.00%
F072	COM.SAL2	0.00%
F073	COM.SAL3	0.00%
F074	COM.SAL4	0.00%
F075	COM.SAL5	0.00%
F076	COM.SAL6	0.00%
F077	COM.SAL7	0.00%
F078	COM.SAL8	0.00%
F079	COM.SAL9	0.00%

* When you take this report in the PGM1 mode,
the PGM2 indication is replaced by a "PGM1".

To be continued on the next page

F080 NON COM.
F081 XDEPT TL
F082 DEPT(-)
F085 XBTTL TL
F086 BTTL(-)
F087 NET 1
F088 NET 2
F089 NET 3
F090 NET 4
F091 NET 5
F092 NET 6
F093 SUBTOTAL
F094 MDSE ST
F095 DIFF ST
F096 XXXTOTAL
F097 CHANGE
F098 ITEMS
F099 PLU ST
F100 COPY
F101 G.C COPY
F102 AVE.
F103 GROUP01
F104 GROUP02
F105 GROUP03
F106 GROUP04
F107 GROUP05
F108 GROUP06
F109 GROUP07
F110 GROUP08
F111 GROUP09
F115 D-P
F116 TTL TAX
F117 NET
F118 COM.AMT1
F119 COM.AMT2
F120 COM.AMT3

F121 COM.AMT4
F122 COM.AMT5
F123 COM.AMT6
F124 COM.AMT7
F125 COM.AMT8
F126 COM.AMT9
F127 COM.TTL
F128 DEPT
F129 GROUP
F130 PLU
F131 TRANS.
F132 TL-ID
F133 CLERK
F134 CASHIER
F135 HOURLY
F136 DAILY
F137 ZERO SAL
F138 CATEGORY
F139 SALES

8 Reading of programmed items for functions - 2
(Reading in the PGM2 mode)

31/08/98 7:55	11	
123456 #1455	MAVER	
11 NILS		
 #2600 XPGM2X		
#2614	Print message	
== VOEUR ==		
== STORE ==		
MESSAGE		
#2615	10	
#2616	10	Line feed for differ ST Validation printing counter
01	00000000	
02	00000000	
03	00000010	
04	00000000	
05	00000000	
06	00000000	
07	00000000	Optional feature selection
08	00000000	
09	00000000	
10	00000000	
11	00000000	
12	00000000	
13	00000000	
#2617	030	Drawer open alarm time
#2619	0 00	Hourly report format/start hour
#2620	10	Stacked report
13		
#2630	0000	
#2631	1234	Secret code
#2632	0000	
#2680	2	Drawer no. for the drawer for foreign currency
#2690	1	RS-232C channel data
2	0000	
3	0000	

9 Reading of programmed tax rates
(Reading in the PGM2 mode)

31/08/98 8:05	11	
123456 #1464	MAVER	
11 NILS		
 #2700 XPGM2X		
TAX1	5.0000%	Tax rate
	0.12	Lowest taxable amount
TAX2	4.0000%	
	0.12	
TAX3	6.0000%	
	0.20	
TAX4	-----	
TAX5	-----	
TAX6	-----	

10 Reading of programmed items for auto keys
(Reading in the PGM2 mode)

31/08/98 7:57	11
123456 #1457	MAVER
11 NILS	
 #2900 XPGM2X	
#01	2 KEY
	PLU
	1 KEY
	0 KEY
	0 KEY
	DOS
#02	DO7
	TOTAL
#03	-----
#04	-----
 #10	

12 Training mode

The training mode is used when the operator or the manager practices register operations.

When a cashier set in training is selected, the machine automatically enters the training mode. When a cashier not set in training is selected, the machine automatically enters the ordinary REG mode. (For programming, consult your dealer.)

The training operations is valid only in REG, MGR and VOID mode.

The corresponding cashier memory is updated in the training mode. Other memories are not updated.

Key operation	Print
1000 3 3 TL	31/08/98 14:47 03 123456 #1550 TOM 12 BETH TRAINING DPT.05 \$10.00 3x 24.00 DPT.03 \$72.00 CASH \$82.00

READING (X) AND RESETTING (Z) OF SALES TOTALS

- Use the reading function (X) when you need to take a reading of sales information entered since the last resetting. You can take this reading any number of times. It does not affect the register's memory.
- Use the resetting function (Z) when you need to clear the register's memory. Resetting prints all sales information and clears the entire memory except for the GT1 through GT3, reset count, and consecutive number.

1 Summary of reading (X) and resetting (Z) reports and the key operations to obtain the reports

X1 and Z1 reports: Daily sales reports

X2 and Z2 reports: Periodic (monthly) consolidation reports

Item	Mode switch position		Job code	Key operation
	X1/Z1	X2/Z2		
Flash report: (Only display) To clear the display, press the CL key or turn the mode switch to another position.	X1	—	—	Dept. key (1 to 50) : Department total amount
				(X) key: Amount of cash in drawer
				ST key: Sales total
Full reading and resetting	X1, Z1	X1, Z1	100	
		X2, Z2	200	
Individual clerk reading and resetting	X1, Z1	X1, Z1	141	
		X2, Z2	241	
	<OP X/Z> X, Z		41	
Individual cashier reading and resetting	X1, Z1	X1, Z1	151	
		X2, Z2	251	
	<OP X/Z> X, Z		51	
Full clerk reading and resetting	X1, Z1	X1, Z1	140	
		X2, Z2	240	
Full cashier reading and resetting	X1, Z1	X1, Z1	150	
		X2, Z2	250	
Full department reading	X1	X1	110	
		X2	210	
Individual group reading	X1	X1	112	
		X2	212	
Full group reading	X1	X1	113	
		X2	213	

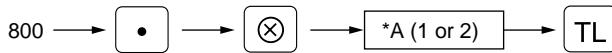
Item	Mode switch position		Job code	Key operation	
	X1/Z1	X2/Z2			
Commission sales report	X1	X1	132	132 → → TL	
Reading and resetting of sales information for a range of PLUs/subdepartments	X1, Z1	X1, Z1	120	120 → → TL 220 → → → TL	Reading Resetting
		X2, Z2	220	All PLUs Start PLU code → → End PLU code → TL	
Reading of sales information of PLUs/subdepartments associated with an individual department	X1	X1	121	121 → → Dept. code → TL	
		X2	221		
Reading of sales information on PLUs/subdepartments whose sales amounts are zeros	X1	X1	127	127 → → TL	
		X2	227		
Reading of sales information for the price amount range of PLUs/sub department	X1	X1	129	129 → → TL	
		X2	229	All prices Start price amount → → End price amount → TL	
Transaction reading	X1	X1	130	130 → → TL	
		X2	230		
Total in drawer	X1	X1	131	131 → → TL	
		X2	231		
Reading and resetting of hourly sales information	X1		160	Reading: 160 (For individual time range) → → Start* time → → End* time → TL	
	X1, Z1			Reading and Resetting: 160 → → → TL	Reading Resetting
Reading and resetting of a stacked report	X1, Z1	X1, Z1	190	190 → → TL	When Z of stacked report is initiated, X only reports will be skipped.
		X2, Z2	290	290 → → → TL	
Reading and resetting of the daily net totals		X2, Z2	270	270 → → → TL	

Note Individual and full clerk reading and resetting are available only in the cashier and clerk system. In the factory setting, the register provides the "cashier only" system. So, if you want to change the system, consult your dealer.

2 Automatic modification of register system for introduction of EURO

To make your register correspond to the introduction of EURO, your register system can be automatically modified when the procedure shown below is executed in the Z2 mode.

Procedure



*A=1: Applicable for the period of co-existence of EURO and national currency. (During the transition period)

*A=2: Applicable for the time the national currency is withdrawn from circulation. (At the completion of transition period.)

Note

- You can perform the each operation only once with the substitution of "A=1" and "A=2". If you performed the operation with the substitution of "A=2" first, you cannot perform the operation with the substitution of "A=1".
- After the execution of the procedure above, EURO is treated as domestic currency, and National currency as foreign currency. Program the rate of national currency for EURO to the exchange 1(**EX1**) key.

The details of the register system modification are as follows:

When "1" is substituted to "A":

1. Issuing a general Z1 report (Job #100).
2. Issuing a general Z2 report (Job #200).
3. Resetting GT1, GT2 and GT3.
4. Setting "Yes" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job #2616)
5. Changing the domestic currency symbol to EURO symbol.

When "2" is substituted to "A":

1. Issuing a general Z1 report (Job #100).
2. Issuing a general Z2 report (Job #200).
3. Resetting GT1, GT2 and GT3.
4. Setting "No" for a PGM function "Printing exchange 1 total amount and change amount on receipt and journal" (Job #2616)
5. Changing the domestic currency symbol to EURO symbol.

Note

When the operation with the substitution of "A=1" has been performed already, only 1, 2, and 4 are executed.

3 Daily sales totals

■ Full reading and resetting of sales totals

You can take X and Z reports in the X1/Z1 mode. The use of the decimal key (.) determines when the report will actually reset the sales totals.

• Sample X report

31/08/98 22:42	11
123456 #1668	MAVER
11 NILS	
#100 XX1X	Report no.
TR: X00000000318.65	Read symbol
XDEPTX	
D01 126.563 0	Dept. code
PL000001 X638.51	Sales q'ty
4.33%	Sales amount
D04 25.000 0	Ratio of dept.1 sales amount to "+" dept. total
DPT.04 X874.38	
5.93%	
D09 36.500 0	
DPT.09 X322.61	
2.19%	
GROUP01 374.063 0	Group1 sales q'ty
X14740.71	Group1 sales amount
54.10%	Ratio of dept. group1 sales amount to "+" department
D02 358.000 0	
DPT.02 X10953.25	
100.00%	
GROUP02 358.000 0	
X10953.25	
40.20%	
XDEPT TL 796.063 0	"+" dept. counter
X27224.81	and total
100.00%	
D10 3.000 0	
DPT.10 -35.00	
DEPT(-) 3.000 0	"-" dept. counter
-35.00	and total

To be continued on the next page

• Sample Z report

31/08/98 1:23	11
123456 #1689	MAVER
11 NILS	
#100 XZ1X	Reset symbol
Z1 0001	Reset counter
GT1 X00000027192.47	Net grand total (GT2 - GT3)
GT2 X00000027981.50	Grand total of plus registration
GT3 -00000000789.03	Grand total of minus registration
TR: X00000000318.65	Grand total of training mode registration

The subsequent printout occurs in the same format as in the X report.

Note Not all reports provide the resetting capability. Please refer to the chart on pages 73 and 74.

D11	30.000 Q	
DPT.11	X1.50	
XHASH TL	30.000 Q X1.50	{"+" hash dept. counter and total}
D12	2.000 Q	
DPT.12	X16.50	
HASH(-)	2.000 Q X16.50	{"-" hash dept. counter and total}
D13	7.000 Q	
DPT.13	-60.00	
XBTTL TL	7.000 Q -60.00	{"+" bottle return dept. counter and total}
D14	7.000 Q	
DPT.14	X505.24	
BTTL(-)	7.000 Q X505.24	{"-" bottle return dept. counter and total}
X TRANS. X		
C—>2	2 Q -16.00	Subtotal ⊖2 counter and total
%1	2 Q -2.92	Subtotal percent 1 counter and total
NET1	X27192.47	Net sales total
TAX1 ST	X3528.94	Taxable 1 total
VAT 1	X135.73	VAT 1 total
TAK2 ST	X78.05	
VAT 2	X3.00	
TAX3 ST	-14.15	
VAT 3	-0.80	
TAK6 ST	X127.56	
TTL TAX	X137.93	Tax total
NET	X27054.54	Net total without tax
VAT SFT	X57.20	VAT shift total
C—>1	7 Q -35.00	Item ⊖1counter and total
%2	5 Q X4.28	Item percent 2 counter and total
REFUND	6 Q X39.90	Refund counter and total
••	13 Q X64.46	REG-mode void counter and total
• MODE	4 Q X594.25	Void-mode transaction counter and total
MGR v	10 Q X594.25	Manager item void counter and total
SBTL •	1 Q X40.80	Subtotal void counter and total

VP CNT	23 0	Validation print counter
NO SALE	7 0	No-sale (exchange) counter
G.C. CNT	2 0	Gest check copy counter
GUEST	153 0	Customer counter
ORDER TL	¥27641.85	Order total
PAID TL	¥27558.10	Paid total
AVE.	¥180.12	Paid total average per costomer
O-F	¥83.75	Order total - paid total
XXXRA	2 0	Received on account counter and total
	¥96.00	
XXXPO	2 0	Paid out counter and total
	¥60.00	
CA/CHK	1 0	Cheque cashing counter and total
	¥30.00	
CASH	142 0	Cash counter and total
	¥26925.21	
CHECK	6 0	Cheque 1 sales counter and total
	¥61.25	
CREDIT1	6 0	Credit 1 sale and tendering counter and total
	¥367.15	
CREDIT2	1 0	Credit 2 sale and tendering counter and total
	¥40.00	
EXCH1	2 0	Exchange 1 counter and total
	100.20	
DOM.CUR1	¥165.10	
EXCH2	2 0	
	900.00	
DOM.CUR2	¥1285.70	
EXCH3	1 0	
	0.50	
DOM.CUR3	¥0.82	
EXCH4	1 0	
	100.00	
DOM.CUR4	¥164.73	
XXXXCID	¥25443.46	Cash in drawer
XCH ID	¥127.25	Cheque in drawer
CA/CH ID	¥25570.71	Cash + cheque in drawer
CHK/CG	¥28.75	Change total for cheque tendering

■ Cashier reading and resetting

Using this function, you can take X and Z reports for individual cashiers or all cashiers.

Individual cashier reading and resetting

Note The OP X/Z-mode reading and resetting is allowed only when your machine has been programmed for "OP X/Z mode available" in the PGM2 mode.

• Sample X report

31/08/98 21:16	11
123456 #1677	MAVER
11 NILS	
#151 XX1X	
XCASHIER X	
01CSR#11	MAVER
ORDER TL	¥4222.41
PAID TL	¥4237.41
AVE.	¥81.49
REFUND	3.0
	¥20.20
② MODE	2.0
	¥580.00
MGR w	6.0
	¥580.00
G.C. CNT	1.0
GUEST	52.0
XXXRA	1.0
	¥48.00
XXXPD	1.0
	¥30.00
CASH	48.0
	¥3989.41
CHECK	3.0
	¥31.10
CREDIT1	2.0
	¥188.65
EXCH1	1.0
	0.20
DOM.CUR1	¥0.32
EXCH2	2.0
	900.00
DOM.CUR2	¥1285.70
EXCH3	1.0
	0.50
DOM.CUR3	¥0.82
XXXXCID	¥2730.82
XCH ID	¥49.10
CA/CH ID	¥2779.92
CHK/CG	¥26.10

• Sample Z report

31/08/98 21:18	11
123456 #1678	MAVER
11 NILS	
#151 XZ1X	
XCASHIER X	
01CSR#11	MAVER

The subsequent printout occurs in the same format as in the sample X report.

Full cashier reading and resetting

31/08/98 21:15	11
123456 #1675	MAVER
11 NILS	
#150 XX1X	
XCASHIER X	

31/08/98 21:26	11
123456 #1679	MAVER
11 NILS	
#150 XZ1X	
XCASHIER X	

The subsequent printout occurs in the same format as in the sample reports of individual cashier reading and resetting, and sales data for cashiers print in this sequence.

■ Clerk reading and resetting

Using this function, you can take X and Z reports for individual clerks or all clerks.

Individual clerk reading and resetting

Note The OP X/Z-mode reading and resetting is allowed only when your machine has been programmed for "OP X/Z mode available" in the PGM2 mode.

• Sample X report

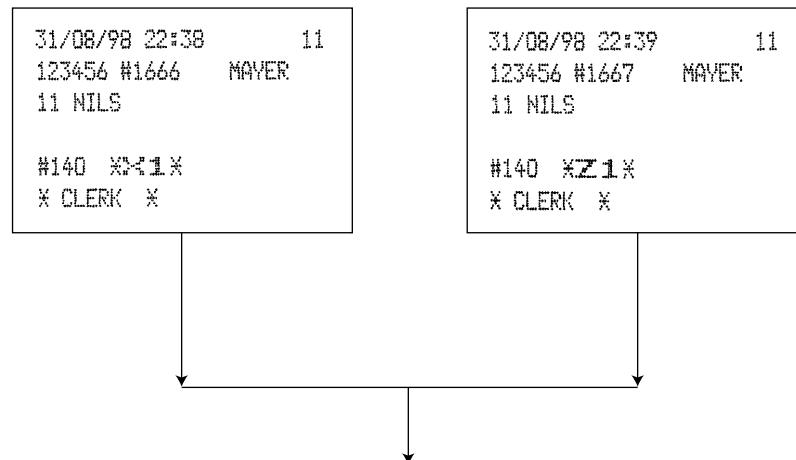
31/08/98 22:41	11
123456 #1667	MAVER
11 NILS	
 #141 XX1X * CLERK *	
01CLK#11	NILS
ORDER TL	X22362.23
CDM.SAL1	X252.75
CDM.SAL2	X11116.71
CDM.SAL4	X74.23
CDM.SAL5	X58.41
CDM.SAL6	X24.85
CDM.SAL7	X31.00
CDM.SAL8	X44.54
CDM.SAL9	X113.30
NON COM.	X10649.35
Non-commission sales amount	

• Sample Z report

31/08/98 23:02	11
123456 #1681	MAVER
11 NILS	
 #141 XZ1X * CLERK *	
01CLK#11	NILS

The subsequent printout occurs in the same format as in the sample X report.

Full clerk reading and resetting



The subsequent printout occurs in the same format as in the reports of individual clerk reading and resetting, and sales data for clerks print in this sequence.

* When you take these reports in the OP X/Z mode, the X report shows an "OP X" and the Z report shows an "OP Z".

■ Reading and resetting of hourly sales information

You can take X and Z reports for sales totals and transaction (customer) counters for 48 half hours, or 24 hours. If both quantity and amount are zero, their print is skipped.

• Sample X report

31/08/98 21:57	11
123456 #1652	MAVER
12 BETH	
#160 XZ1X	
X HOURLY X	
7:00	0 0
	X0.00
AVE.	X0.00
7:30	2 0
	X64.50
AVE.	X32.25
SUBTOTAL	2 0
	X64.50
8:00	5 0
	X72.50
AVE.	X14.50
8:30	3 0
	X76.15
AVE.	X25.38
SUBTOTAL	8 0
	X148.65

17:00	3 0
	X21.00
AVE.	X7.00
17:30	11 0
	X277.41
AVE.	X25.22
SUBTOTAL	14 0
	X298.41
18:00	9 0
	X75.72
AVE.	X8.41
18:30	11 0
	X196.80
AVE.	X17.89
SUBTOTAL	20 0
	X272.52

• Sample Z report

31/08/98 21:58	11
123456 #1653	MAVER
12 BETH	
#160 XZ1X	
X HOURLY X	

The subsequent printout occurs in the same format as in the sample X report.

■ Full department reading

31/08/98 20:56	11	D12	2.000 Q
123456 #1622	MAVER	DPT.12	×16.50
12 BETH		D15	4.000 Q
#110 X#11X		DPT.15	-1.08
XDEPT%		HASH(-)	6.000 Q
D01 126.563 Q			×15.42
PL000001 X638.51			
4.66%			
D04 17.000 Q		D13	7.000 Q
DPT.04 X670.45		DPT.13	-60.00
4.90%		XBTTL TL	7.000 Q
D05 61.000 Q			-60.00
DPT.05 X11314.11		D14	7.000 Q
82.66%		DPT.14	×505.26
D09 28.500 Q		BTTL(-)	7.000 Q
DPT.09 X83.80			×505.26
0.61%			
GROUP01 337.063 Q			
X13687.81			
52.82%			
D02 357.000 Q			
DPT.02 X10930.25			
100.00%			
GROUP02 357.000 Q			
X10930.25			
42.18%			
XDEPT TL 757.063 Q			
X25915.09			
100.00%			
D10 3.000 Q			
DPT.10 -35.00			
DEPT(-) 3.000 Q			
-35.00			
D11 30.000 Q			
DPT.11 X1.50			
XHASH TL 30.000 Q			
X1.50			

■ Individual group reading

31/08/98 21:02	11
123456 #1623	MAVER
12 BETH	
#112 XX1X	
X GROUP X	
D01	126.563 Q
PL000001	XE38.51
D04	17.000 Q
DPT.04	XE70.45
D05	61.000 Q
DPT.05	XE1314.11
D06	22.000 Q
DPT.06	XE350.45
D07	32.000 Q
DPT.07	XE437.00
D08	50.000 Q
DPT.08	XE193.29
D09	28.500 Q
DPT.09	XE83.80
GROUP01	337.063 Q XE13687.81

} Group 1 sales q'ty and total

■ Full group reading

31/08/98 21:03	11
123456 #1624	MAVER
12 BETH	
#113 XX1X	
X GROUP X	
GROUP01	337.063 Q XE13687.81 52.82%
GROUP02	357.000 Q XE10930.25 42.18%

} Group 1 sales q'ty and total

XDEPT TL	757.063 Q XE25915.09 100.00%
DEPT(-)	3.000 Q -35.00
XHASH TL	30.000 Q XE1.50
HASH(-)	6.000 Q XE15.42
XBTTL TL	7.000 Q -60.00
BTTL(-)	7.000 Q XE505.26

■ Reading and resetting of sales information for a range of PLUs/subdepartments

This function provides you with X and Z reports for sales information of a certain range of PLUs/subdepartments. You must enter the start and end PLU/subdepartment code of the range. Of course, the range may represent all of the PLUs/subdepartments in your register.

• Sample X report

PLU code	PL000001	118.000 Q	Range
Item label	PL000001	¥691.75	
	PL000002	7.000 Q	
	PL000002	¥10.50	
	PL000003	1.000 Q	
	PL000003	¥0.00	
	PL000006	3.063 Q	
	PL000006	¥18.38	
	PL000008	9.500 Q	
	PL000008	¥40.75	
	PL000010	19.000 Q	
	PL000010	¥114.40	
	PL000011	5.000 Q	
	PL000011	¥60.00	
	PL000080	3.000 Q	Sales q'ty and total
	PL000080	¥21.50	
	PL000090	2.000 Q	
	PL000090	¥10.38	
	XXXTOTAL	265.063 Q ¥1262.69	Range sum

• Sample Z report

31/08/98 20:30	11
123456 #1612	MAVER
12 BETH	
#120 XX1X	
X PLU X	

The subsequent printout occurs in the same format as in the sample X report.

■ Reading of sales information on PLUs/subdepartments associated with an individual department

PLU code	31/08/98 21:05 123456 #1625 MAVER 12 BETH #121 X#41X X PLU X PL000001 D01 P000006 3.063 0 PL000006 X18.38 P000010 19.000 0 PL000010 X114.40 P000021 8.000 0 PL000021 X28.00	Associated dept.code Sales q'ty and total
	P000080 3.000 0 PL000080 X21.50 P000090 2.000 0 PL000090 X10.38 XXXTOTAL 99.563 0 X411.36	

■ Reading of sales information for the price amount range of PLUs/subdepartments

31/08/98 21:15 123456 #1629 MAVER 12 BETH #129 X#41X X CATEGORY X 0.00 - 9999.99 P000001 122.000 0 PL000001 X727.25 P000002 7.000 0 PL000002 X10.50 P000003 1.000 0 PL000003 X0.00 P000006 3.063 0 PL000006 X18.38	Price amount range Sales q'ty and total
P000080 3.000 0 PL000080 X21.50 P000090 2.000 0 PL000090 X10.38	

■ Reading of sales information on PLUs/subdepartments whose sales amounts are zeros

PLU code	31/08/98 21:05 123456 #1626 MAVER 12 BETH #127 X#41X X ZERO SAL X P000004 PL000004 P000005 PL000005 P000007 PL000007	Item label

■ Commission sales information

31/08/98 22:35 123456 #1663 MAVER 12 BETH #132 X#41X X SALES X COM.SAL1 X2139.15 COM.SAL2 X11262.11 COM.SAL3 X187.00 COM.SAL4 X50.20 COM.SAL5 X113.45 COM.SAL6 X35.00 COM.SAL7 X92.56 COM.SAL8 X53.85 COM.SAL9 X125.51 NON COM. X13268.11 NET 1 X26866.34	Commission sales 1 amount total Non-commission sales amount
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------

■ Transaction reading

31/08/98 21:44	11
123456 #1644	MAVER
12 BETH	
#130 X#41X	
X TRANS. X	

In this report the same transaction data as those printed when full reading is taken are printed except department sales totals.

■ Total in drawer reading

31/08/98 21:43	11
123456 #1643	MAVER
12 BETH	
#131 X#41X	
X TL-ID X	
EXCH1	2 Q
	100.20
DOM.CUR1	¥165.10
EXCH2	2 Q
	900.00
DOM.CUR2	¥1285.70
EXCH3	1 Q
	0.50
DOM.CUR3	¥0.82
EXCH4	1 Q
	100.00
DOM.CUR4	¥164.73
XXXXCID	¥24419.56
XCH ID	¥109.25
CA/CH ID	¥24528.81

Exchange 1 counter
Currency exchange 1 total
Domestic currency for currency exchange 1 total
Cash in drawer
Cheque in drawer
Cash/Cheque in drawer

■ Reading and resetting of a stacked report

You can print multiple X1/Z1 reports in sequence at a time.

In this case, you need to program in advance what X1/Z1 reports should be printed in the stacked report sequence.

Note

The following job code numbers alone can be used for stacked report printing.

Job code number: 100, 110, 113, 120, 127, 129, 130, 131, 132, 140, 150, 160

Refer to "Selection of X/Z reports to be printed in the stacked sequence" for details.

4 Periodic consolidation

Your register allows you to take consolidation X and Z reports of a chosen period (normally one week or a month).

■ Generality

The periodic reading or resetting reports are the same in format as those in the X1/Z1 report for daily total except job code no. (#2xx) and mode indication ("X2" or "Z2").

• Sample X report

02/09/98 21:49	11
123456 #1692	MAYER
11 NILS	
#200 XM2X	Read symbol

• Sample Z report

02/09/98 21:53	11
123456 #1816	MAYER
11 NILS	
#200 XZ2X	Reset symbol
Z1 0005	Reset counter of daily total
Z2 0003	Reset counter of periodic consolidation
GT1 X00000057632.95	Grand total
GT2 X00000066847.69	
GT3 -00000009214.74	
TR X00000000318.65	

The subsequent printouts are the same in format as those in the X/Z report for daily total.

■ Reading and resetting of the daily net totals

31/08/98 20:46 11 123456 #1894 MAVER 11 NILS	31/08/98 20:58 11 123456 #1904 MAVER 11 NILS
#270 XZ2X X DAILY X 08/01 89 0 X5385.03 08/02 92 0 X5335.00 08/03 102 0 X5056.77 08/04 98 0 X4989.25 08/05 84 0 X5681.50	#270 XZ2X

The subsequent printout occurs in the same format as in the sample X report.

29/08 81 0 X5031.41 30/08 91 0 X4897.25
XXXTOTAL 2047 0 X152851.21

■ Reading and resetting of a stacked report

You can print multiple X1/Z1 reports in sequence at a time.

In this case, you need to program in advance what X1/Z1 reports should be printed in the stacked report sequence.

Note

The following job code numbers alone can be used for stacked report printing.

Job code number: 200, 210, 213, 220, 227, 229, 230, 231, 232, 240, 250, 270

Refer to "Selection of X1/Z1 and X2/Z2 reports to be printed in the stacked report sequence" for details.

COMPULSORY CASH/CHEQUE DECLARATION

If you want to make mandatory the declaration of the cash and cheque amount in the drawer before outputting cashier Z reports, consult your dealer and have your register programmed for compulsory cash/cheque declaration.

If your register is programmed for compulsory cash/cheque declaration (CCD), a cashier must first count and declare the cash and cheque amounts (of domestic and foreign currency) in the drawer, before he or she can output a cashier report. The procedure for outputting a CCD report is shown below.

Types of compulsory cash/cheque declaration

- Compulsory declaration prior to individual cashier resetting
- Compulsory declaration prior to full cashier resetting

Note

- Compulsory cash/cheque declaration is available in the above two types. You can choose either of these. Consult your dealer for details.
- When cash/cheque declaration is compulsory, flash reports are not available.

Key operation

After the first **TL** key is pressed, the register prompts the cashier to input the cash and cheque accounts for both domestic and foreign currency. The cashier can simply input the total amounts of each currency unit, or the number of bills or coins of each denomination of each currency unit.

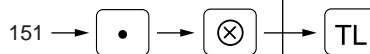
• Individual cashier report

OP X/Z mode



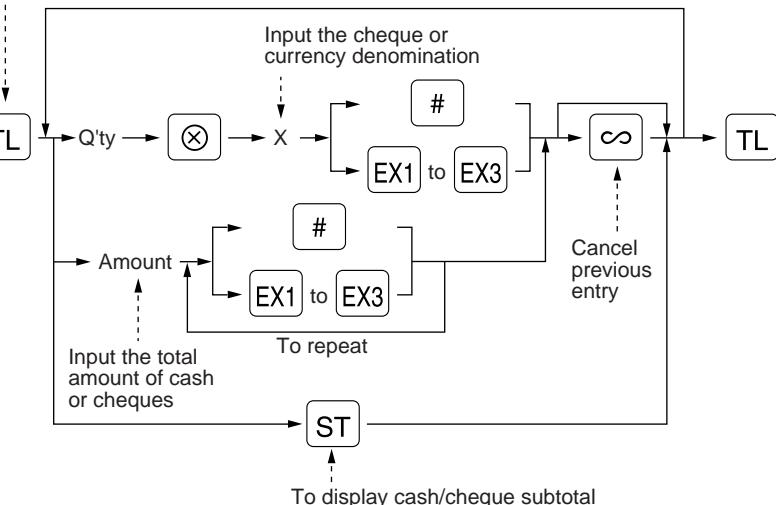
The drawer opens and the cashier is prompted to enter the cash and cheque amounts. ("L" is displayed.)

X1/Z1 mode



• Full cashier report

X1/Z1 mode



[#] :When inputting the cash or cheque amount in the drawer

[EX1] to [EX3] :When inputting the amount of a foreign currency in the drawer

02/09/98 23:10 11
123456 #1849 MAVER
11 NILS

#151 XZ1X

X CCD X

CA/CH IS X2712.53
EXCH1 IS 150.00
EXCH2 IS 50.00
EXCH3 IS 100.00

CCD entry amount

X CASHIER X

D1CSR#1 1 MAVER
ORDER TL X3220.10
PAID TL X3220.10
AVE. X536.68
GUEST 36 0

CASH 32 0
X3080.60

CREDIT1 1 0
X24.50

EXCH1 2 0

150.00 — Currency exchange 1 in drawer to be obtained

EXCH1 IS 150.00 — Total of entered (declared) exchange 1 in drawer

CCD DIF. 0.00 — Difference

DOM.CUR1 X247.18

EXCH2 1 0

50.00

EXCH2 IS 50.00

CCD DIF. 0.00

DOM.CUR2 X71.42

EXCH3 1 0

100.00

EXCH3 IS 100.00

CCD DIF. 0.00

DOM.CUR3 X164.47

XXXXCID X2712.53 — Cash in drawer to be obtained

CA/CH ID X2712.53 — Cash/cheque in drawer to be obtained

CA/CH IS X2712.53 — Total of entered (declared) cash/cheque in drawer

CCD DIF. X0.00 — Difference

DIF. TL X0.00 — Total of difference

OVERRIDE ENTRIES

Programmed limit for functions (such as for maximum amounts) can be overridden by making an entry in the MGR mode.

Procedure

1. Turn the mode switch to the MGR position.
2. Make an override entry.

Example

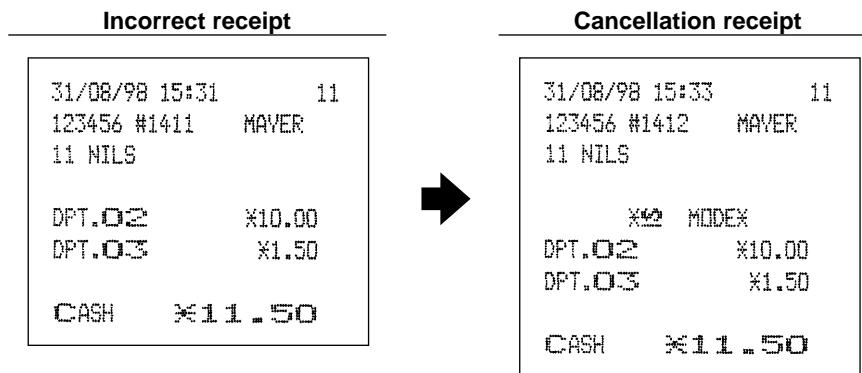
On this example, the register has been programmed not to allow deduction entries over 2.00.

	Key operation	Print
REG-mode entries	1500 <input type="button" value="2"/> 250 <input type="button" value="⊖"/> ...Error <input type="button" value="CL"/>	DPT.02 ₩15.00 ⊖→1 -2.50
Turn the mode switch to the MGR position.	250 <input type="button" value="⊖"/>	CASH ₩12.50
Return the mode switch to the REG position.	<input type="button" value="TL"/>	

CORRECTION AFTER FINALIZING A TRANSACTION (AFTER GENERATING A RECEIPT)

When you need to void incorrect entries that cashiers cannot correct (incorrect entries that are found after finalizing a transaction or cannot be corrected by direct or indirect void), follow this procedure in the MGR mode.

1. Turn the mode switch to the MGR position.
2. Press the  key to put your register in the VOID mode.
3. Repeat the entries that are recorded on an incorrect receipt. (All data for the incorrect receipt are removed from register memory; the voided amounts are added to the void register totalizer.)



Note

Your machine leaves the VOID mode whenever a transaction is canceled (i.e. finalized in the VOID mode.) To void additional transactions repeat steps 2. and 3. above.

PRIOR TO ENTRIES

1 Preparations for entries

Before registrations, insert the operator key into the mode switch and turn it to the REG position and check the following items:

■ Receipt and journal paper rolls

If the receipt and journal paper rolls are not set in the machine or there are low rolls, install new ones according to section "4. Installing and removing the paper rolls" under "OPERATOR MAINTENANCE."

■ Receipt ON/OFF function

You can disable receipt printing in the REG mode to save paper using the receipt function. To disable receipt printing, press the **[RCPT]** key in the OP X/Z position. This key toggles the receipt printing status ON and OFF. To check the receipt printing status, turn the mode switch to the OP X/Z position or press the **[CL]** key in the REG mode. When the function is in the OFF status, the receipt off indicator "_" illuminates.

Note Your register will print reports regardless of the receipt state. This means that the receipt roll must be installed even when the receipt state is "OFF".

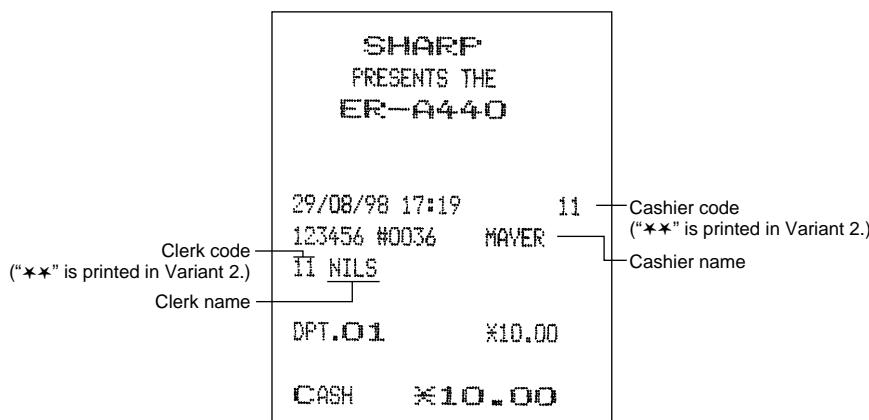
■ Cashier and clerk assignment

Prior to any item entries, cashiers must enter their cashier codes into the register, and may also be required to enter a clerk code. However, these code entries may not be necessary when the same cashier or clerk code is used in the next transaction.

Cashier codes and clerk codes are available in two variants: Variant 1, in which they are displayed ("00" to "99"), and Variant 2, in which they are not displayed (always "00").

When the cashier or clerk code is assigned by the following procedure, the register prints the two-digit cashier code or clerk code (variant 2: "**) and the cashier or clerk name both on the receipt and journal for every transaction.

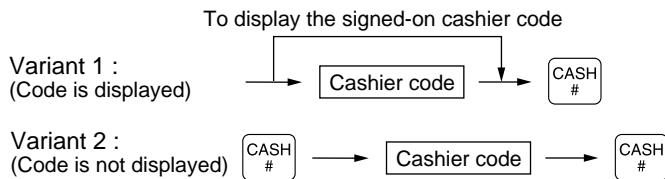
Note All of these settings depend on how the register has been programmed. For the selection of these settings, consult your local dealer.



Procedure

Cashier assignment

■ Sign-on



■ Sign-off

Variant 1 / Variant 2 :

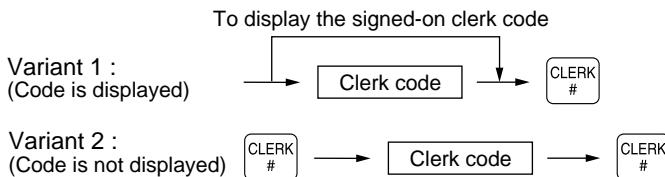


Note

The real cashier key system is also available. In this system put one of the 1 through 15 keys in the cashier switch to sign on. If you want to choose this system, consult your dealer.

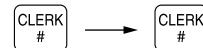
Clerk assignment

■ Sign-on



■ Sign-off

Variant 1 / Variant 2 :



Note

- On the current factory setting, only the entry of the cashier code is required. When cashier & clerk codes entries are desirable for your register, consult your dealer.
- If you want to enter cashier and/or clerk codes before every transaction, consult your dealer.
- For the display type selection of cashier code and clerk code, "Variant 1" has been preset. For the selection of "Variant 2," consult your dealer.
- Clerk can be changed during the transaction. Consult your dealer.

2 Error warning

In the following examples, your register will go into an error state accompanied with a warning beep and the error symbol "E" on the display. Clear the error state by pressing the **CL** key and take proper action.

Please refer to the error code table on page 124.

- When you enter an over 32-digit number (entry limit overflow): Cancel the entry and re-enter a correct number.
- When you make an error in key operation: Clear the error and continue operation.
- When you make an entry beyond a programmed amount entry limit: Check to see if the entered amount is correct. If it is correct, it can be rung up in the MGR mode. Contact your manager.
- When an including-tax subtotal exceeds eight digits: Delete the subtotal by pressing the **CL** key and press the **TL**, **CA2**, **CH1** through **CH4**, or **CR1** through **CR4** key to finalize the transaction.

ENTRIES

1 Item entries

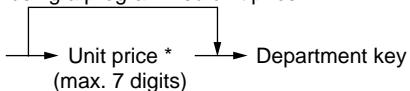
■ Single item entries

Procedure

Department entries

Enter a unit price and press a department key. If you use a programmed unit price, press a department key only.

When using a programmed unit price

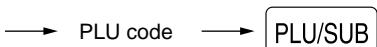


*Less than the programmed upper limit amounts

Note When those departments for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.

PLU entries (indirect PLU entries)

Enter a PLU code and press the **PLU/SUB** key.



Note When those PLUs for which the unit price has been programmed as zero (0) are entered, only the sales quantity is added.

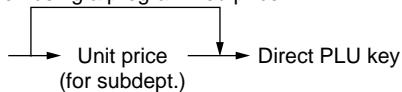
Subdepartment (open PLU) entries

*Less than the programmed upper limit amounts



PLU entries (direct PLU entries)

When using a programmed price



Example

Key operation

1200 **3**
 5
2 **PLU/SUB**
1200 **AMT** 11 **PLU/SUB**
 8
 TL

Print

DPT.03	¥12.00
DPT.05	¥5.00
PL000002	¥1.50
PL000011	¥12.00
PL000008	¥3.50
CASH	¥34.00

■ Repeat entries

You can use this function for entering a sale of two or more same items.

Example

Key operation

Print

Repeated department entry	200 8 8 8	DPT.08 ¥2.00 DPT.08 ¥2.00 DPT.08 ¥2.00
Repeated PLU entry (indirect)	10 PLU/SUB PLU/SUB PLU/SUB	PL000010 ¥7.15 PL000010 ¥7.15 PL000010 ¥7.15
Repeated PLU entry (direct)	51 51	PL000051 ¥2.85 PL000051 ¥2.85
Repeated subdepartment entry	500 AMT 60 PLU/SUB PLU/SUB TL	PL000060 ¥5.00 PL000060 ¥5.00 CASH ¥43.15

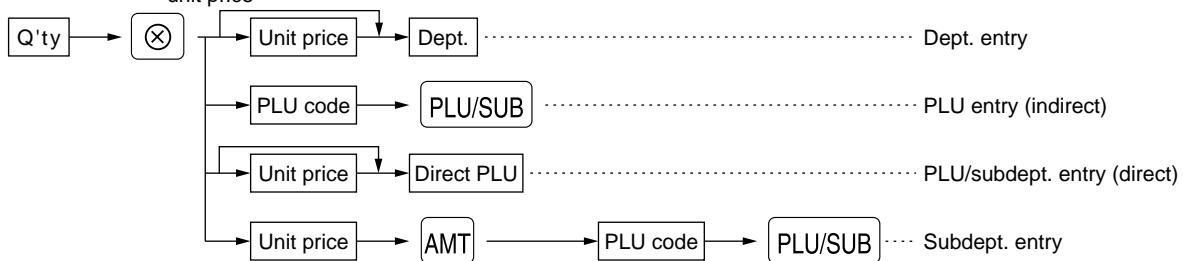
■ Multiplication entries

Use this feature entry method when you need to enter two or more same items.

This feature helps when you sell a large quantity of items or need to enter quantities that contain decimals.

Procedure

When you use a programmed unit price



- Q'ty: Up to four digits integer + three digits decimal
- Unit price: Less than a programmed upper limit
- Q'ty x unit price: Up to seven digits

Example

Key operation

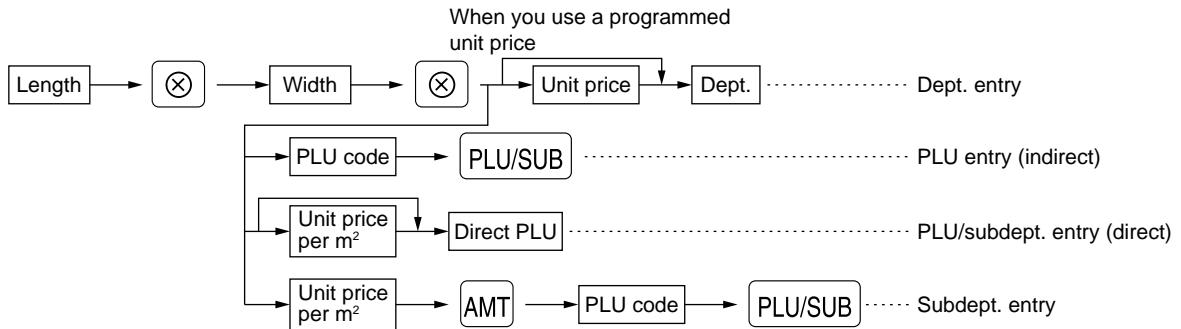
Print

Department entry	7 • 5 X 165 8 15 X	7.5x 1.65 DPT.08 ¥12.38
PLU entry	13 PLU/SUB	15x 2.10 PL000013 ¥31.50
Direct PLU entry	8 • 25 X 58	8.25x 3.00 PL000058 ¥24.75
Subdepartment entry	3 100 AMT 60 PLU/SUB TL	3x 1.00 PL000060 ¥3.00 CASH ¥71.63

■ Successive multiplication entries

This function is practical for example when you enter a sale of items sold by area (square meter).

Procedure



- Length or width: up to seven digits (4-digit integer + 3-digit decimal)
- Unit price: less than a programmed upper limit
- Length x Width x Unit price: up to seven digits (4-digit integer + 3-digit decimal)

Note For actual use of this function, consult your dealer.

Example

Key operation

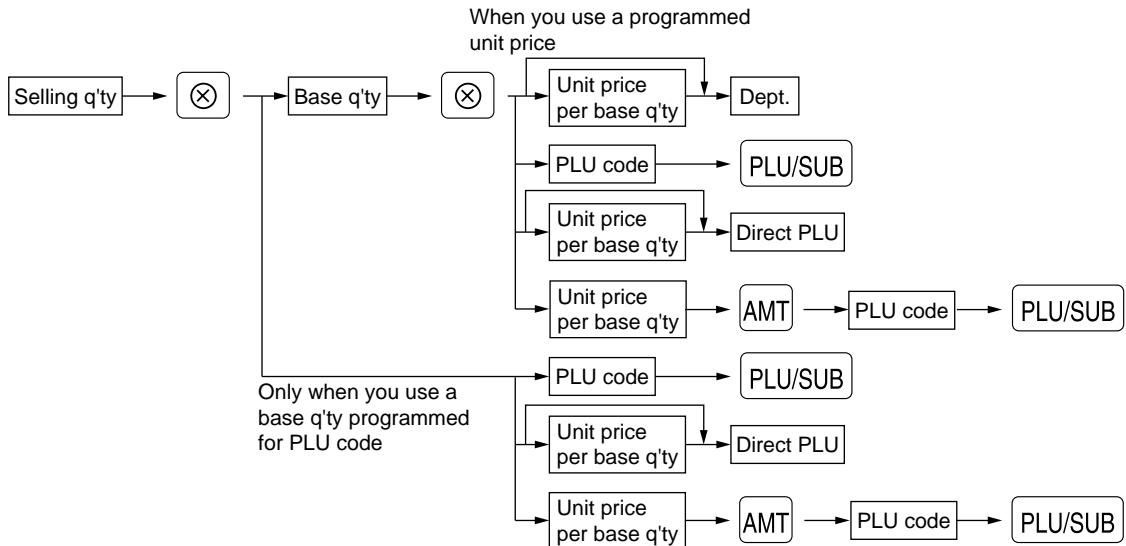
Print

Department entry	3	(⊗)	3x 4x 4.00
	4	(⊗)	DPT.05 ×48.00
	400	5	1.5x 2.5x 3.00
PLU entry	1	(•) 5 (⊗)	PL000008 ×11.25
	2	(•) 5 (⊗)	1.75x 1.75x 6.00
	8	PLU/SUB	PL000006 ×18.38
Subdepartment entry	1	(•) 75 (⊗)	CASH ×77.63
	1	(•) 75 (⊗)	
	600	AMT	
	6	PLU/SUB	
		TL	

■ Split-pricing entries

You will use this function when your customer wants to purchase items normally sold in bulk.

Procedure



- Selling quantity: Up to four digits integer + three digits decimal
- Base quantity: Up to two digits (integer)

Note

For actual use of this function, consult your dealer.

Example

	Key operation	Print
Department entry	{ 7 [⊗] 10 [⊗] 600 7 8 [⊗] 5 [⊗]	7x 10/ 6.00 DPT.07 X4.20 8x 5/ 3.00 PL000035 X4.80
PLU entry	{ 35 [PLU/SUB] TL	CASH X9.00

■ Single item cash sale (SICS)/single item finalize (SIF) entries

SICS entries

- This function is useful when a sale is for only one item and is for cash; such as a pack of cigarettes. This function is applicable only to those departments that have been set for SICS or to their associated PLUs or subdepartments.
- The transaction is finalized and the drawer opens as soon as you press the department key, **PLU/SUB** key or the direct PLU key.

Example	Key operation	Print
	250 For finishing → 9 the transaction	DPT.09 X2.50 CASH X2.50

Note If an entry to a department or PLU/subdepartment set for SICS follows the ones to departments or PLUs/subdepartments not set for SICS, it does not finalize and results in a normal sale.

SIF entries

- If an entry to a department or PLU/subdepartment set for SIF follows the ones to departments or PLUs/subdepartments not set for SIF, the transaction is finalized immediately as a cash sale.
- Like the SICS function, this function is available for single-item cash settlement.

Example	Key operation	Print
	1745 8 1500 For finishing → 9 the transaction	DPT.08 X17.45 DPT.09 X15.00 CASH X32.45

■ Link PLU entries

Operation is the same as normal PLU's. The print of a link PLU entry on the receipt varies according to the PGM2 programming (#2616).

Printing detailed information

When a link PLU is entered, the linked PLUs total amount and text and their individual amounts are printed automatically.

Example	Key operation	Print
	21 PLU/SUB TL	PL000021 X3.50 PL000025 X3.00 PL000026 X2.00 PL000027 X8.00 CASH X16.50

Linked PLUs

Printing leading link PLUs and total sales amount

When a link PLU is entered, only the leading link PLUs' text and the total sales amount (the sum of prices for PLU's which are included in the link PLU) are printed.

Example

Key operation

21 [PLU/SUB]
[TL]

Print

PL000021	¥16.50	Total amount
CASH	¥16.50	

Note

If a discount entry is made for a link PLU, the discount amount is calculated based on the total sales amount. The discount itself is given to the leading link PLU.

2 Displaying subtotals

Your machine provides the following two types of subtotals:

■ Normal subtotal

This is a subtotal which is displayed by pressing the [ST] key. When you press it, the subtotal of all entries which have been made is displayed and the symbol "□" will light up in the display.

Example

Key operation

100 [9]
100 [2]
700 [3]
[ST]
[TL]

Print

DPT.09	¥1.00
DPT.02	¥1.00
DPT.03	¥7.00
CASH	¥9.00

Note

Subtotal will not be printed on a receipt on the current factory setting. If you want to print it, consult your dealer.

■ Difference subtotal (Differ ST)

This is a subtotal which is printed by pressing the [DIFER ST] key. You can get two or more difference subtotals in one transaction.

When you press it first, the difference subtotal of all entries which have been made is displayed and printed. If you press it second, you will get the difference subtotal of entries which have been made after you last got it. Taxes are calculated each time you press the [DIFER ST] key, and taxes and taxable subtotals are printed on the receipt according to the programming (job #2616).

Example

Key operation

100 [9]
200 [2]
[DIFER ST]
700 [3]
[TL]

Print

DPT.09	¥1.00
DPT.02	¥2.00
DIFF ST	¥3.00
DPT.03	¥7.00
DIFF ST	¥7.00
CASH	¥10.00

3 Finalization of transaction

■ Cash or cheque tendering

Press the **ST** key to get a subtotal, enter the amount tendered by your customer, then press the **TL** or **CA2** key if it is a cash tender or press one of the **CH1** through **CH4** key if it is a cheque tender. When the amount tendered is greater than the amount of the sale, your register will show the change due amount and the symbol “**[**” will light up. Otherwise your register will show a deficit and the symbol “**□**” will light up. Make a correct tender entry.

Example

Cash tendering

Key operation

1
1000
ST
TL

Print

XXXTOTAL ₩7.35
CASH ₩10.00
CHANGE ₩2.65

Cheque tendering

Key operation

1
1000
ST
CH1

Print

XXXTOTAL ₩7.35
CHECK ₩10.00
CHANGE ₩2.65

■ Mixed tendering (cheque + cash)

Example

Key operation

1
1000
CH1
500
TL

Print

XXXTOTAL ₩14.56
CHECK ₩10.00
CASH ₩5.00
CHANGE ₩0.44

■ Cash or cheque sale that does not need any tender entry

Enter items and press the **TL** or **CA2** key if it is a cash sale or press one of the **CH1** through **CH4** if it is a cheque sale. Your register will display the total sale amount.

Example

Key operation

300
6
10
PLU/SUB
TL

Print

DPT.06 ₩3.00
PL000010 ₩7.15
CASH ₩10.15

In the case of cheque sale

CHECK ₩10.15

■ Credit sale

Enter items and press the corresponding credit keys (**CR1** through **CR4**).

Example	Key operation	Print
	2500 6 3250 7 CR1	DPT.06 X25.00 DPT.07 X32.50 CREDIT1 X57.50

Amount tendering operations (i.e., change calculations) can be achieved by the **CR1** through **CR4** key when a PGM2 programming allows them.

■ Mixed-tender sale (cash or cheque tendering + credit tendering)

Example	Key operation	Print
	1 ST 950 TL CR2	XXXTOTAL X49.50 CASH X9.50 CREDIT2 X40.00

Note Press one of the **CH1** through **CH4** keys or the **CR1** through **CR4** keys in place of the **TL** key when your customer makes payment in cheques or by credit account.

4 Computation of VAT (Value Added Tax)/tax

■ VAT/ tax system

The machine may be programmed for the following six tax systems by your dealer.

Automatic VAT 1-6 system (Automatic operation method using programmed percentages)

This system, at settlement, calculates VAT for taxable 1 through 6 subtotals by using the corresponding programmed percentages.

Automatic tax 1-6 system (Automatic operation method using programmed percentages)

This system, at settlement, calculates taxes for taxable 1 through 6 subtotals by using the corresponding programmed percentages, and also adds the calculated taxes to those subtotals, respectively.

Manual VAT 1-6 system (Manual entry method using programmed percentages)

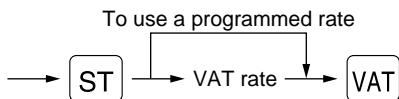
Procedure



This system provides the VAT calculation for taxable 1 through 6 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **ST** key.

Manual VAT 1 system (Manual entry method for subtotals that uses VAT 1 preset percentages)

Procedure



This system enables the VAT calculation for the then subtotal. This calculation is performed using the VAT 1 preset percentages when the **VAT** key is pressed just after the **ST** key. For this system, the keyed-in tax rate can be used.

Manual tax 1-6 system (Manual entry method using preset percentages)

Procedure



This system provides the tax calculation for taxable 1 through 6 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **ST** key. After this calculation, you must finalize the transaction.

Automatic VAT 1-3 and automatic tax 4-6 system

This system enables the calculation in the combination with automatic VAT 1 through 3 and automatic tax 4 through 6. The combination can be any of VAT1 through VAT3 corresponding to taxable 1 through taxable 3 and any of tax 4 through 6 corresponding to taxable 4 through taxable 6 for each item. The tax amount is calculated automatically with the percentages previously programmed for these taxes.

Note

- A PLU not programmed for any of the tax statuses is registered depending on the tax status of the department which the PLU belongs to.
- VAT/tax assignment is printed at the fixed right position near the amount on the receipt as follows:

VAT1/tax1 → A
VAT2/tax2 → B
VAT3/tax3 → C
VAT4/tax4 → D
VAT5/tax5 → E
VAT6/tax6 → F

When the multiple VAT/tax is assigned to a department or a PLU, a smaller number of the VAT/tax will be printed. For details, contact your authorized SHARP dealer.

Example

Key operation

(When the manual VAT 1-6 system is selected) 550 4
ST
VAT
TL

Print

DPT.04	×5.50 A
SUBTOTAL	×5.50
TAX1 ST	×5.50
VAT 1	×0.21
NET 1	×5.29
CASH	×5.50

■ VAT shift entries

This feature is intended to shift the tax status of a particular department (or PLU) programmed for taxable 1 or taxable 1 and taxable 3.

1. When the VAT shift entry is made for a particular department or PLU programmed for taxable 1, their tax status shifts to taxable 2.
2. When this entry is made for a particular department (or PLU) programmed for taxable 1 and taxable 3, the tax status "taxable 1" remains unchanged, but the other "taxable 3" is ignored.

Procedure

Press the  to activate the VAT shift prior to entering department(s) or PLU(s) concerned.

Example

Key operation

(When the manual
VAT 1-6 system
is selected.)

550






Print

DPT.04	£5.50	B
SUBTOTAL	£5.50	
TAX2 ST	£5.50	
VAT 2	£0.21	
NET 2	£5.29	
CASH	£5.50	

5 Auxiliary entries

■ Percent calculations (premium or discount)

- Your register provides the percent calculation for the subtotal or each item entry depending on the programming.
- Percentage: 0.01 to 99.99%

Percent calculation for the subtotal

Example

Key operation

(When a discount
of 10% is
programmed for
the  key)

4 
140 
225 





Print

4x 1.40	
DPT.05	£5.60
DPT.07	£2.25
DPT.07	£2.25
SUBTOTAL	£10.10
-10.00%	
%1	-1.01
CASH	£9.09

Percent calculation for item entries

Example	Key operation	Print
(When a premium of 15% is programmed for the $\frac{\%}{2}$ key)	800 6 %2 90 PLU/SUB 7 • 5 %2 TL	DPT.06 X8.00 15.00% %2 X1.20 PL000090 X5.00 7.5% %2 X0.38 CASH X14.58

■ Deduction entries

Your register allows you to deduct a certain amount less than a programmed upper limit after the entry of an item or the computation of subtotal depending on the programming.

Deduction for the subtotal

Example	Key operation	Print
	575 6 80 PLU/SUB ST 100 %2 TL	DPT.06 X5.75 PL000080 X7.50 (-)2 -1.00 CASH X12.25

Deduction for item entries

Example	Key operation	Print
	675 7 75 (- TL	DPT.07 X6.75 (-)1 -0.75 CASH X6.00

■ Refund entries

If a refund item is the one entered into a department, enter the amount of the refund, then press the [RF] key and the corresponding department key in this order; and if an item entered into a PLU is returned, enter the corresponding PLU code, then press the [RF] and [PLU/SUB] keys, or press the [RF] and direct PLU keys without entry of PLU code, in this order.

Example	Key operation	Print
	250 [RF] 6 7 [⊗] 13 [RF] [PLU/SUB] [TL]	DPT.06 R-2.50 -7x 2.10 PL000013 R-14.70 CHANGE ₩17.20

■ Printing of non-add code numbers

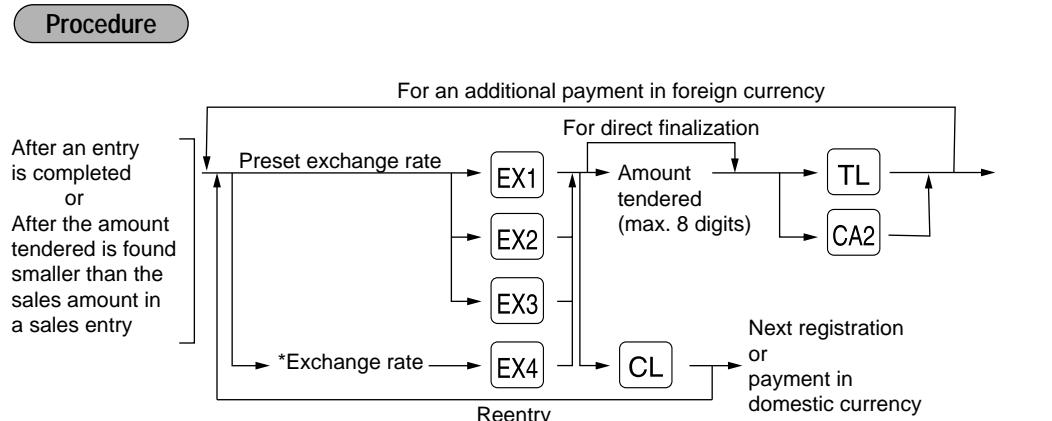
Enter a non-add code number such as a customer's code number and credit card number within a maximum of 16 digits and press the [#] key at any point during the entry of a sale. Your register will print it at once.

Example	Key operation	Print
	1230 [#] 1500 6 [CR1]	#0000000000001230 DPT.06 ₩15.00 CREDIT1 ₩15.00

6 Payment treatment

■ Currency exchange

Your register allows payment entries of foreign currency. Pressing one of the [EX1] through [EX4] key creates a subtotal in foreign currency. Cash alone can be handled after currency exchange.



*Exchange rate: 0.000000 to 999.999999

Note When the amount tendered is short, the deficit is shown in domestic currency.

Example**Preset exchange rate (0.6068) - EX1****Key operation****Print**

Currency exchange →
 2300 6
 4650 7
 EX1
 Amount tendered in foreign currency → 10000 TL

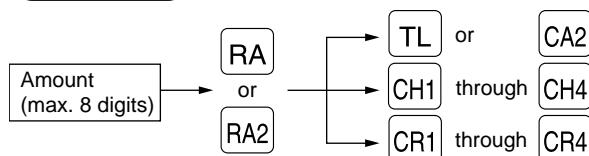
DPT.06	¥23.00	Domestic currency
DPT.07	¥46.50	Exchange rate
XXXTOTAL	¥69.50	Foreign currency
EXCH1	0.606800	Domestic currency
	42.18	
CASH	100.00	
CHANGE	¥95.28	

Manual exchange rate - EX4 (The EX4 key can be used only for the manual entry of an exchange rate.)

Key operation**Print**

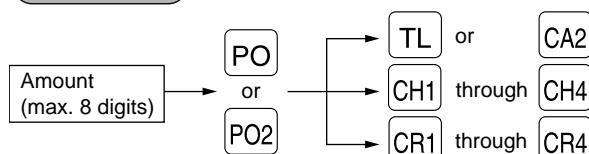
2300 6
 4650 7
 0 • 6070 EX4
 10000 TL

DPT.06	¥23.00	
DPT.07	¥46.50	
XXXTOTAL	¥69.50	
EXCH4	0.6070	
	42.19	
CASH	100.00	
CHANGE	¥95.23	

■ Received on account entries**Procedure****Example****Key operation****Print**

12345 #
 4800 RA
 CH1

#00000000000012345
 CHECK
 XXXRA ¥48.00

■ Paid out entries**Procedure**

Example**Key operation**

6789 **#**
3000 **PO**
CH1

Print

#00000000000006789
CHECK
XXXPO X30.00

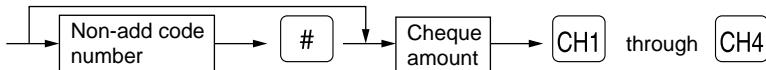
■ No sale (exchange)

Simply press the **[NS]** key without any entry. The drawer will open and the printer will print "NO SALE" on both the journal and the receipt. If you let your machine print a non-add code number before pressing the **[NS]** key, a no sale entry is achieved with a non-add code number printed.

#00000000000045678
NO SALE

■ Cashing a cheque

Enter the cheque amount, then press one of the **[CH1]** through **[CH4]** key.

Procedure**Example****Key operation**

6789 **#**
3000 **CH1**

Print

#0000000000006789
CA/CHK X30.00

7 Automatic sequencing key ([AUTO]** key) entries**

You can achieve a programmed transaction simply by pressing a corresponding automatic sequencing key.

Example

(**[AUTO₂**] = 500 **7** **TL**)

Key operation

AUTO₂

Print

DPT.107 X5.00
CASH X5.00

CORRECTION

1 Correction of the last entry (direct void)

If you make an incorrect entry relating to a department, PLU/subdepartment, percentage (61 through 64), deduction (65 through 68) or refund, you can void this entry by pressing the ∞ key immediately after the incorrect entry.

Example	Key operation	Print
	1250 6 ∞ 2 PLU/SUB ∞ 600 8 %2 ∞ 328 9 28 6 ∞ 250 RF 6 ∞ TL	DPT.06 X12.50 DPT.06 w-12.50 PL000002 X1.50 PL000002 w-1.50 DPT.08 X6.00 15.00% %2 X0.90 %2 w-0.90 DPT.09 X3.28 (--> 1 -0.28 (--> 1 w0.28 DPT.06 R-2.50 DPT.06 Rx2.50 CASH X9.28

2 Correction of the next-to-last or earlier entries (indirect void)

With the ∞ key, you can void any incorrect positive department or PLU/subdepartment entry made during a transaction if you find it before finalizing the transaction (e.g. pressing the **TL** key). This function is applicable to plus department and PLU/subdepartment entries only.

Example	Key operation	Print
Correction of a department entry Correction of a PLU entry (direct PLU) Correction of a PLU entry (indirect PLU) →	1310 6 1755 7 10 PLU/SUB ∞ 58 PLU/SUB 825 7 1310 ∞ 6 ∞ 8 58 ∞ PLU/SUB TL	DPT.06 X13.10 DPT.07 X17.55 PL000010 X7.15 PL000008 X3.00 PL000058 X3.00 DPT.07 X8.25 DPT.06 w-13.10 PL000008 w-3.00 PL000058 w-3.00 CASH X32.95

3 Subtotal void

You can void an entire transaction. Once subtotal void is executed, the transaction is aborted and the register issues a receipt.

Example

Key operation

1310 2
1755 6
10 PLU/SUB
35 PLU/SUB
Subtotal void { ST
 ∞
 ST }

Print

DPT.02	X13.10
DPT.06	X17.55
PL000010	X7.15
PL000035	X3.00
SUBTOTAL	X40.80
SBTL #	-40.80
XXXTOTAL	X0.00

4 Correction of incorrect entries not handled by the direct or indirect void function

Any errors found after the entry of a transaction has been completed or during an amount tendered entry cannot be voided. These errors must be corrected by the manager.

The following steps should be taken:

1. If you are making the amount tendered entry, finalize the transaction.
2. Make correct entries from the beginning.
3. Hand the incorrect receipt to your manager for its cancellation.

SPECIAL PRINTING FUNCTIONS

1 Copy receipt printing

If your customer wants a receipt after you have finalized a transaction with the receipt function being in the "OFF" status (no receipting), press the **RCPT** key. This will produce a receipt. Your register can also print a copy receipt when the receipt function is in the "ON" status.

Note Pressing the **RCPT** key in the OP X/Z mode before registration toggles the status "ON" and "OFF".

Example

Printing a copy receipt after making the entries shown below with the receipt function being in the "OFF" status

Key operation	Print
850 3 150 1 TL Print on the journal	31/08/98 14:32 11 123456 #1350 MAVER DPT.02 X8.50 3x 1.50 DPT.02 X4.50 CASH X13.00 11

For receipting → **RCPT**

Print on the receipt

31/08/98 14:32 11 123456 #1350 MAVER DPT.02 X8.50 3x 1.50 DPT.02 X4.50 CASH X13.00

When the receipt function is in the "ON" status and you press the **RCPT** key to make a second copy

31/08/98 14:32 11 123456 #1350 MAVER XCDP*V*X DPT.02 X8.50 3x 1.50 DPT.02 X4.50 CASH X13.00

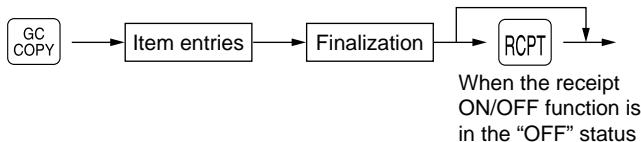
When the receipt function is in the "ON" status,
the "*COPY*" symbol will be printed on the receipt.

2 Guest check copy

You can use this function when you want to take a copy of guest check.

Press the **GC COPY** key and make a desired entry.

Procedure



Note

The guest check copy has nothing to do with the memory.

Example

Key operation

1480
2
TL

Print

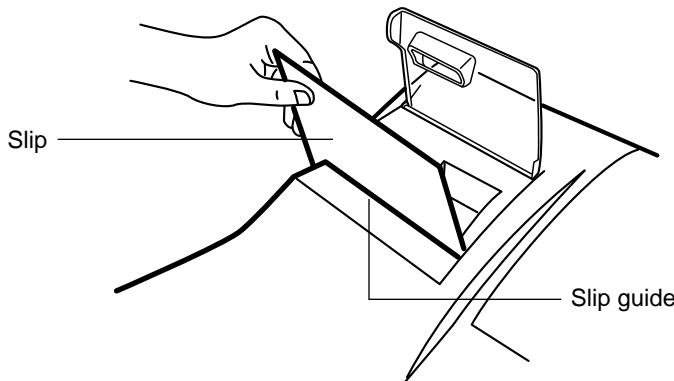
XG.C COPY/X
DPT.02 X14.80
CASH X14.80

3 Validation printing function

Your cash register can perform a validation printing.

■ Validation slip setting and printing

Insert a validation slip into the printer with its printed face to the front of the machine (see the figure below), then press the **VP** key.



Note

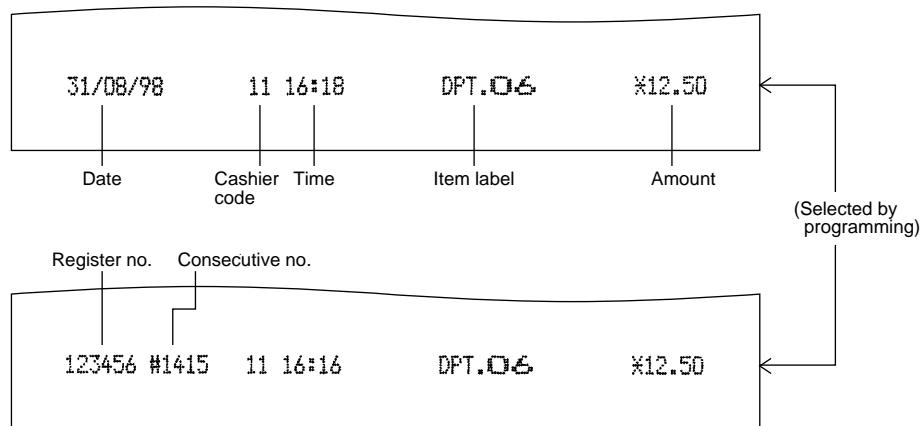
To insure proper validation, insert the slip securely until it stops.

■ Validation printing examples

Validation printing of item entries

Example

- Department entry



- PLU entry

31/08/98	11 16:35	PL000001	X10.00
----------	----------	----------	--------

- Deduction entry (\ominus through $\ominus 4$)

31/08/98	11 16:26	$\leftarrow \rightarrow 1$	-10.00
----------	----------	----------------------------	--------

- Refund entry

31/08/98	11 16:32	DPT.06	R-2.50
----------	----------	--------	--------

- Item percent entry (%1 through %4)

31/08/98	11 16:32	%1	-1.91
----------	----------	----	-------

- Void entry

31/08/98	11 16:32	DPT.06	W-12.50
----------	----------	--------	---------

Validation printing after the finalization of a transaction

31/08/98	11 16:32	***TOTAL	X33.19
----------	----------	----------	--------

Transaction symbol Amount

[TL] or [CA2] key

- When an amount tendered entry is made
 - When no amount tendered entry is made
- [CH1] to [CH4] key**

- When an amount tendered entry is made
 - When no amount tendered entry is made
- [CR1] to [CR4] key**

[RA] key

[RA2] key

[PO] key

[PO2] key

Transaction symbol

*** *** TOTAL**

CASH or CASH2

CHECK or CHECK2 to CHECK4

CHECK or CHECK2 to CHECK4

CA/CHK

CREDIT1 to CREDIT4

*** *** RA**

*** *** RA2**

*** *** PO**

*** *** PO2**

Amount

Sales amount

Sales amount

Amount tendered

Sales amount

Amount tendered

Sales amount

Amount received on account

Amount received on account

Amount paid out

Amount paid out

Validation printing of the training mode

31/08/98	03 15:07	T	CASH	X17.00
----------	----------	---	------	--------

Training mode symbol

Note

- When you make an entry for which compulsory validation printing has been programmed, the “” will light up in the display. Carry out the validation printing successively until the “” goes off (or by the programmed number of times) while replacing validation slips. You cannot proceed to any further entry unless this printing is completed.
- Programmed compulsory validation printing can be overridden by performing the following operation depending upon your initial program setup.

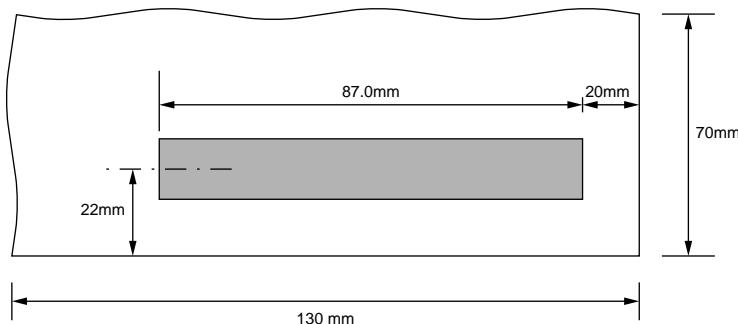
1. Turn the mode switch to the “MGR” position.

2. → **VP**

■ Validation slip specification

Make validation slips according to the following specification. The use of any slips other than specified causes the printer to malfunction.

- Type of paper: plain paper
- Paper thickness: 0.07 to 0.14 mm
- Paper width: 130 mm or more
- Paper height: 70 mm or more
- Print position



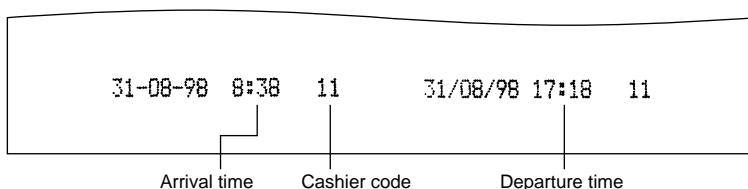
4 Printing of the employee arrival and departure times

The register allows the cashier to print the employee arrival and departure times, etc. using the validation printing function.

1. Turn the mode switch to the "OP X/Z" position.
2. Put a card into the paper chute and perform the following key operation.

- Arrival time
Numeric key 1 → **VP**
- Departure time
Numeric key 2 → **VP**

3. Sample printout



OVERLAPPED CASHIER ENTRY

This function allows you to switch from one cashier to another and to interrupt the first cashier's entry. So the second cashier can do his or her entry in this mode. For actual use of this function, consult your dealer.

Example

Cashier 1: Entry started

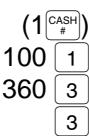
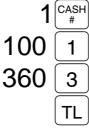
Cashier 2: Cashier change (1 to 2), interrupt initiated

Cashier 2: Transaction finished (2)

Cashier 1: Cashier change (2 to 1), entry restart

Note

- When the cashier and clerk system is applied for your register, you cannot operate the overlapped cashier entry.
- The overlapped cashier entry is not effective while the tendering sale is going on.
- If any cashier is still making an entry (or has not finalized the transaction yet), the machine does not run in any mode other than REG and MGR and can print no X/Z reports. The error code "E22" and the corresponding cashier code(s) are displayed at this time.

Key operation	Comments
1. Cashier 1 is assigned. 	The entry by cashier 1 is started.
2. Cashier 2 is assigned. 	The entry by cashier 2 is started. (The entry by cashier 1 is interrupted.)
3. Cashier 1 is assigned. 	The transaction by cashier 2 is finalized. The entry by cashier 1 is restarted. The transaction by cashier 1 is finalized.

OPERATOR MAINTENANCE

1 In case of power failure

When power is lost, the machine retains its memory contents and all information on sales entries.

- When power failure is encountered in register idle state or during an entry, the machine returned to the normal state of operation after power recovery.
- When power failure is encountered during a printing cycle, the register prints “=====” and then carries out the correct printing procedure after power recovery. (See the sample print.)

31/08/98 19:16	11
123456 #1577	MAAYER
12 BETH	
DPT.07	X10.00
DPT.08	-----
DPT.08	X35.00
CASH	X45.00

2 In case of printer's motor locking

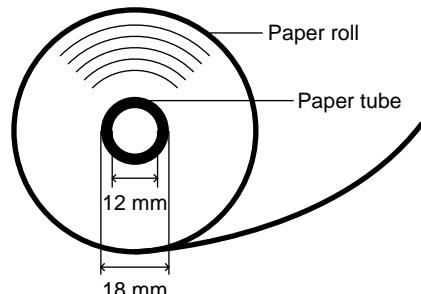
If the printer's motor happens to lock, the printing stalls, the register will continuously start an intermittent beeping tone. If this occurs, please follow the procedure below.

1. Unplug the power cord from the outlet.
2. Insure the printer is clear of any obstructions (e.g paper jams, etc).
3. Plug the power cord into the outlet. The following format appears in the display.
“-----”
4. Feed the receipt and journal paper to the proper position.
5. Press the **CL** key.
6. The register prints the power failure symbol and continues printing.

3 Paper roll near-end sensing function (only for the journal paper) <option>

When the journal paper roll comes near the end or is not loaded, the machine senses this condition and sounds an alarm, displaying the error code “E04”. At this time, clear the alarm with the **CL** key and replace the paper roll as soon as possible. The following entry can be made after clearing the alarm. However, since this function works each time one transaction is completed, the alarm sound will be emitted again as the following transaction is completed unless the paper roll is replaced.

- The sensing position depends upon the size of the paper tube. Therefore, it is advisable to use paper rolls - whose paper tube is 18 mm in O.D. and 12 mm in I.D. - specified by SHARP.
- If the sensing occurs too early or late, contact your dealer.



4 Installing and removing the paper roll

■ Recording paper specifications

Be sure to use paper rolls specified by SHARP.

The use of any other paper rolls than specified could cause paper jamming, resulting in register malfunction.

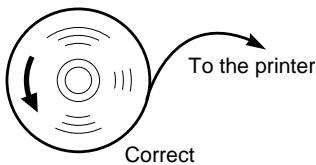
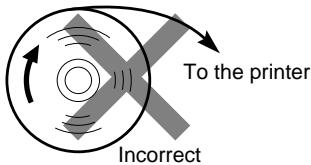
Paper specification

Paper width:	44.5 ± 0.5 mm
Max. outside diameter:	80 mm
Weight:	52.3 — 64.0 g/m ²
Quality:	bond paper
Paper tube:	18 mm

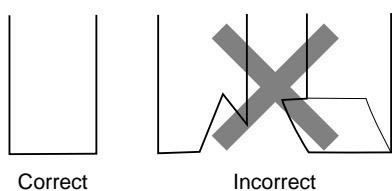
- Be sure to set paper roll(s) prior to using your machine, otherwise it may cause a malfunction.

Install the paper roll in the printer. Be careful then to set the roll and cut the paper end correctly.

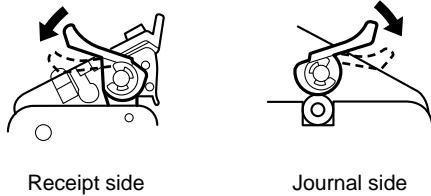
(How to set the paper roll)



(How to cut the paper end)



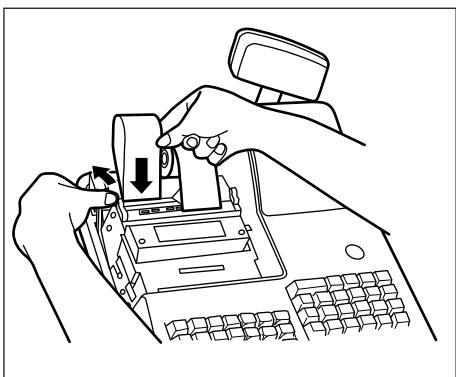
Paper replease lever



To release the paper, press the paper release lever down. It is also used for removing a paper jam. The method for removing a paper jam is described in "Removing a paper jam" later in this section.

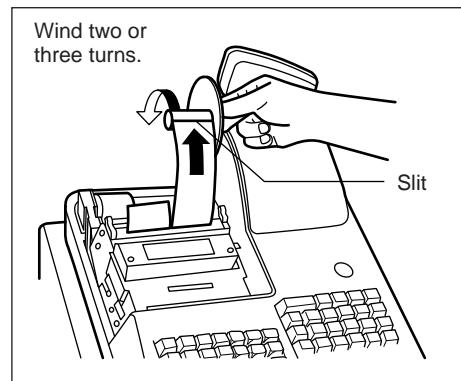
■ Installing the paper roll

Installing the receipt paper roll



1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Press the receipt paper release lever down and insert the paper end into the paper chute of the printer.
5. Pull the paper end that has come out of the printer, holding down the lever.
6. Advance the paper by a required length by pressing the receipt paper feed key.
7. Replace the printer cover.

Installing the journal paper roll



1. Turn the mode switch to the "REG" position with the AC cord connected.
2. Remove the printer cover.
3. Set the paper roll correctly and drop it into the printer.
4. Press the journal paper release lever down, insert the paper end that has come out of the printer into the slit in the paper take-up spool, wind it two or three turns around spool shaft.
5. Set the spool on the bearing.
6. Replace the printer cover.

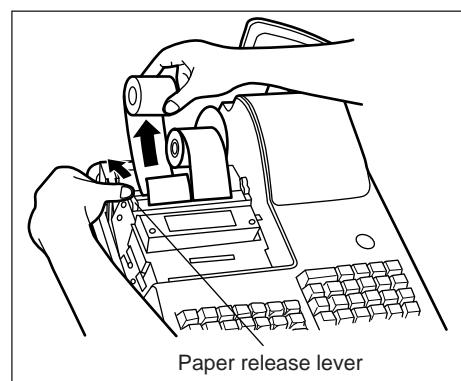
Note

Make sure the ink ribbon cassette has been mounted on the printer when installing the receipt paper roll or the journal paper roll.

■ Removing the paper roll

When a red dye appears on the paper roll, it is time to replace the existing paper roll. Replace the paper roll with a new one.

Removing the receipt paper roll

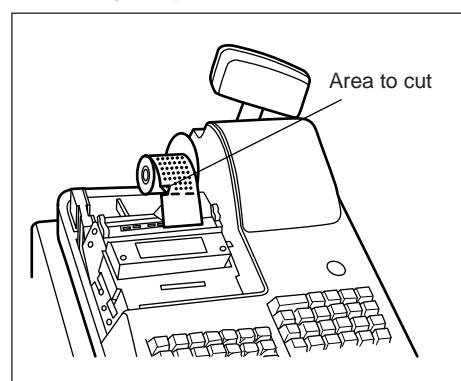


1. Remove the printer cover.
2. Press and hold the receipt paper release lever down and remove the existing paper roll from the paper roll location.

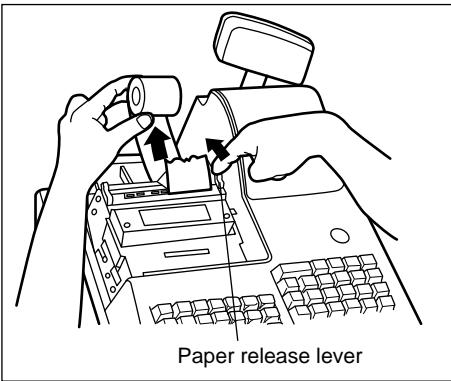
Note

Be sure to pull the roll in the direction of the arrow.

Removing the journal paper roll



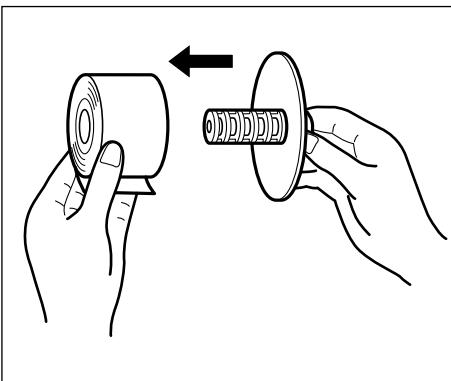
1. Remove the printer cover.
2. Press the journal paper feed key to advance the paper by several lines and then cut it.



- 3.** Press and hold the journal paper release lever down and remove the existing paper roll from the paper roll location.

Note

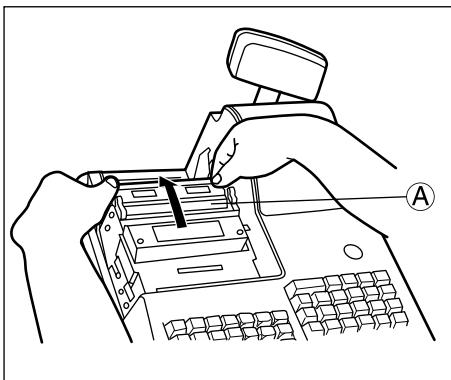
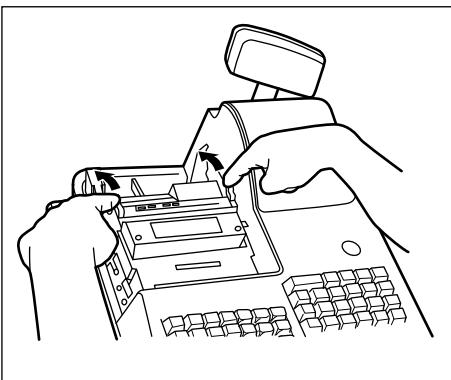
Be sure to pull the roll in the direction of the arrow.



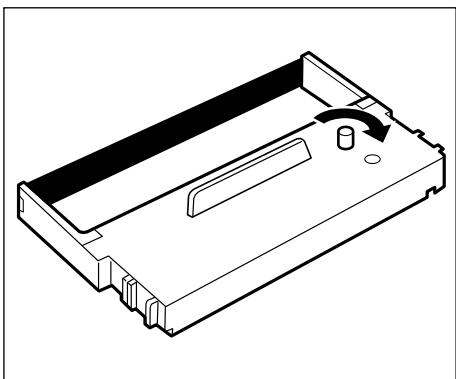
- 4.** Remove the paper roll from the take-up spool.

■ Removing a paper jam

- 1.** Remove the printer cover.
- 2.** Pressing the receipt and journal paper release levers at the same time, lift part **(A)** up. (See the drawing below.)
- 3.** Remove the paper jam.
- 4.** Replace part **(A)** gently.
- 5.** Reset the paper roll correctly following the steps shown in "Installing the paper roll".
- 6.** Replace the printer cover.



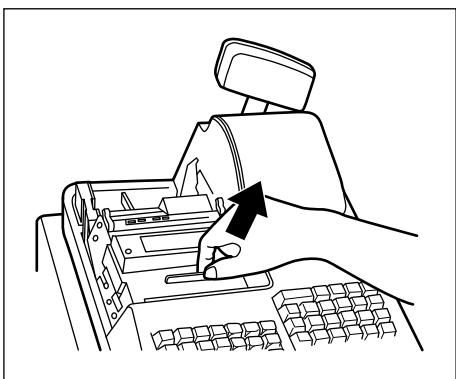
5 Installing the ink ribbon cassette



1. Remove the printer cover.
2. Rotate the knob on the ink ribbon cassette in the direction of the arrow to stretch the ribbon tight.



3. Put the ink ribbon cassette in the location indicated in the figure at left and fix it by using the right and left guides.
4. Rotate the knob two or three turns in the direction of the arrow to make sure it rotates smoothly. Also, make sure the ribbon is not folded.



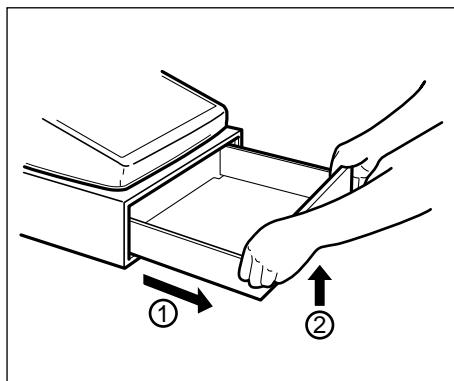
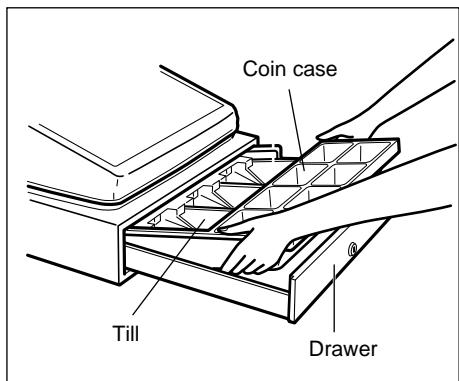
5. To remove the cassette, lift it up.

Precautions:

- Be sure to use an ink ribbon cassette specified by SHARP. The use of any ink ribbon cassettes other than specified could cause troubles in the printer.
- After opening the parcel, be careful not to make the surface of the ink ribbon dirty, and install it soon.
- If you preserve the ink ribbon cassette for a long time, the ink will be dry and the ink ribbon cassette's life will be shortened. Please use it soon. If you do not use it soon, put it in an airtight receptacle and preserve it in a cool and dark place.

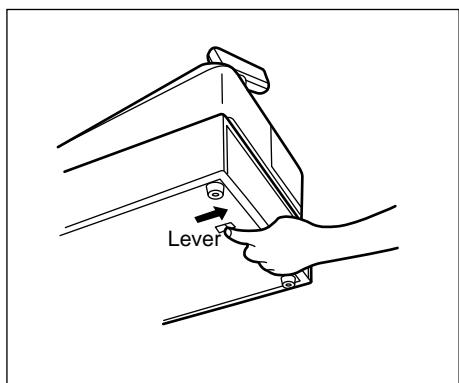
6 Removing the till and the drawer

The till in the register is detachable. After closing your business for the day, remove the till from the drawer and keep the drawer open. The coin case is also detachable from the till. To detach the drawer, pull it forward fully with the till removed, and remove it by lifting it up.



7 Opening the drawer by hand

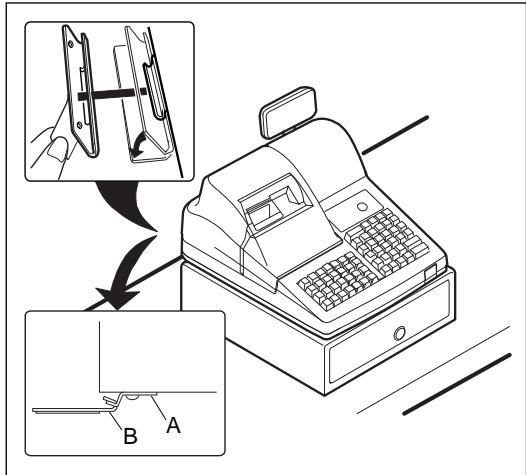
The drawer automatically opens in the usual way. However, when power failure is encountered or the machine becomes out of order, slide the lever located on the machine bottom toward the rear. (See the figure below.) The drawer will not open, if it is locked with a drawer lock key.



8 Installing the fixing angle bracket

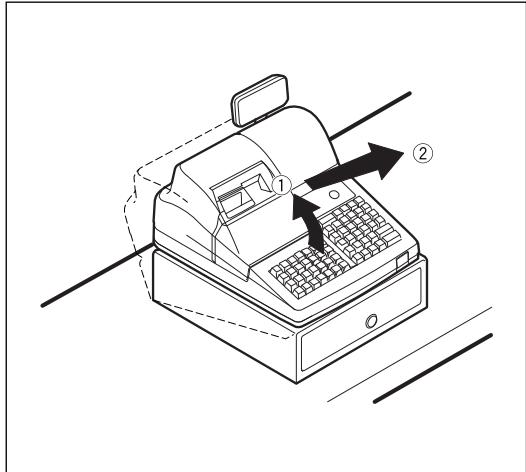
To prevent the register from moving when the drawer opens, the fixing angle bracket is supplied with the register. By attaching the bracket to the table where the register is installed, you can hook the register on this bracket and secure the register to its position.

How to install the fixing angle bracket



1. Thoroughly clean the location where the fixing angle bracket (B) is to be placed.
2. Peel off the adhesive tape on the fixing angle bracket.
3. Hook the angle bracket onto the hook (A) that is located at the bottom rear of the register.
4. Firmly stick the fixing angle bracket to the table surface that your cleaned above.

How to remove the register from the fixing angle bracket



1. Lift up the front of the register and pull the register towards you.

9 Before calling for service

The malfunctions shown in the left-hand column below, labeled "Fault," do not necessarily indicate functional faults of the machine. It is therefore advisable to refer to the "Checking" shown in the right-hand column before calling for service.

Fault	Checking
(1) The display won't be illuminated even when the mode switch is turned to any other position than "O".	<ul style="list-style-type: none">• Is power supplied to the electric outlet?• Is the power cord plug out or loosely connected to the electrical outlet?
(2) The display is illuminated, but the whole machine refuses registrations.	<ul style="list-style-type: none">• Is a cashier code assigned to the register?• Is a clerk code assigned to the register?• Is the mode switch set properly at the "REG" position?
(3) No receipt is issued.	<ul style="list-style-type: none">• Is the receipt paper roll properly installed?• Is there a paper jam?• Is the receipt function in the "OFF" status?
(4) No journal paper is taken up.	<ul style="list-style-type: none">• Is the take-up spool installed on the bearing properly?• Is there a paper jam?
(5) Printing is unusual.	<ul style="list-style-type: none">• Is the ink ribbon cassette installed properly?• Is the ink ribbon life completed?

■ Error code table

When the following error codes are displayed, press the **CL** key and take a proper action according to the table below.

Error code	Error status	Action
E01	Registration error	Make a correct key entry.
E02	Misoperation error	Make a correct key entry.
E03	Undefined code is entered.	Enter a correct code, or declare it by the programming.
E04	Paper empty	Replace a journal paper roll with a new one.
E05	Secret code error	Enter a correct secret code.
E07	Memory is full.	Expand the file within a capacity of memory.
E11	Compulsory depression of the ST key for direct finalization	Press the ST key and continue the operation.
E12	Compulsory tendering	Make a tendering operation.
E22	Overlapped cashier error	
E23	Cashier resetting over error	
E31	Compulsory non-add code entry	Enter a non-add code.
E32	No entry of your cashier code	Make a cashier code entry.
E33	The current cashier code should not be changed.	Change a cashier after finalizing the transaction.
E34	Overflow limitation error	Make a registration within a limit of entry.
E35	The open price entry is inhibited.	Make a preset price entry.
E36	The preset price entry is inhibited.	Make an open price entry.
E37	The direct finalization is inhibited.	Make a tendering operation.
E39	Power-off during validation printing	Print a validation again.
E58	Undefined clerk code is entered	Enter a correct clerk code
E67	Registration buffer is full.	
E76	The drawer is still opened.	Close the drawer.

LIST OF OPTIONS

For your register, the following options are available.

For details, contact your dealer.

- RAM memory chip model ER-03RA
- Remote drawer model ER-05DW
- Till model ER-58CC and till cover model ER-03CV
- EFT interface board model ER-01EF
- Key kit models

By using the following key kits, you can change the keyboard layout of your register including the expansion of the number of departments.

ER-11KT7: 30 regular size key kits

ER-12KT7: 30 1 x 2 size key kits

ER-22KT7: 10 2 x 2 size key kits

ER-11DK7G: 30 regular size dummy key kits

ER-51DK7G: 10 5 x 1 size dummy key kits

SPECIFICATIONS

Model:	ER-A440																		
Dimensions:	355 (W) x 424 (D) x 308 (H) mm																		
Weight:	13.5 kg																		
Power source:	Official (nominal) voltage and frequency																		
Power consumption:	Stand-by 11.5W Operating 42W (max.)																		
Working temperature:	0 °C to 40 °C																		
Electronics:	LSI (CPU) etc.																		
Built-in battery:	Rechargeable battery, memory holding time about 1 month (with fully charged built-in battery, at room temperature)																		
Display:																			
Operator display:	7-segment display (10 positions)																		
Customer display:	7-segment display (7 positions)																		
Printer:																			
Type:	2-station serial dot-matrix (7 x 7 font) printer																		
Printing speed:	Approx. 3.0 lines/second																		
Printing capacity:	24 digits each for receipt and journal paper																		
Other functions:	<ul style="list-style-type: none">• Logo message function• Receipt (ON-OFF) function, journal selective function• Receipt and journal independent paper feed function• Validation printing function																		
Ink ribbon: (Cassette type)	Color: Purple (single color) Width: 13 mm Length: 9 meters																		
Paper roll:	Width: 44.5 ± 0.5 mm Max. diam.: 80 mm Weight: 52.3 - 64.0 g/m ² (bond paper)																		
Cash drawer:	5 slots for bill and 8 for coin denominations																		
Accessories:	<table><tr><td>Manager key</td><td>2</td></tr><tr><td>Submanager key</td><td>2</td></tr><tr><td>Operator key</td><td>2</td></tr><tr><td>Drawer lock key</td><td>2</td></tr><tr><td>Ink ribbon cassette</td><td>1</td></tr><tr><td>Paper roll</td><td>2</td></tr><tr><td>Take-up spool</td><td>1</td></tr><tr><td>Fixing angle bracket</td><td>1</td></tr><tr><td>Instruction manual</td><td>1 copy</td></tr></table>	Manager key	2	Submanager key	2	Operator key	2	Drawer lock key	2	Ink ribbon cassette	1	Paper roll	2	Take-up spool	1	Fixing angle bracket	1	Instruction manual	1 copy
Manager key	2																		
Submanager key	2																		
Operator key	2																		
Drawer lock key	2																		
Ink ribbon cassette	1																		
Paper roll	2																		
Take-up spool	1																		
Fixing angle bracket	1																		
Instruction manual	1 copy																		

* Specifications and appearance subject to change without notice for improvement.

FOR CUSTOMERS IN U.K.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

BLUE:	Neutral
BROWN:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.

The apparatus must be protected by a 3A fuse in the mains plug or distribution board.

CAUTION: DO NOT CONNECT THE LIVE (BROWN) WIRE OR THE NEUTRAL (BLUE) WIRE TO THE EARTH TERMINAL OF YOUR 3-PIN MAINS PLUG.

Environment Protection

The device is supported by a battery. To dispose the battery safely to protect the environment, please note the following points:

- Take the used battery to your local waste depot, dealer or customer service centre for recycling.
- Do not throw the used battery into fire, into water or into the household waste!

Umweltschutz

Das Gerät wird durch eine Batterie gestützt. Um die Batterie sicher und umweltschonend zu entsorgen, beachten Sie bitte folgende Punkte:

- Bringen Sie die leere Batterie zu Ihrer örtlichen Mülldeponie, zum Händler oder zum Kundenservice-Zentrum zur Entsorgung.
- Werfen Sie die leere Batterie niemals ins Feuer, ins Wasser oder in den Hausmüll.

Protection de l'environnement

L'appareil est supporté sur pile. Afin de protéger l'environnement, nous vous recommandons de traiter la pile usagée la façon suivante:

- Apporter la pile usagée à votre centre de traitement des ordures ménagères le plus proche ou, à votre revendeur ou, au service après-vente, pour recyclage.
- Ne jamais jeter la pile usagée dans une source de chaleur, dans l'eau ou dans les vide-ordures.

Miljöskydd

Denna produkt nöddrivs av batteri.

Vid batteribyte skall följande iakttagas:

- Det förbrukade batteriet skall inlämnas till er lokala handlare eller till kommunal miljöstation för återinssamling.
- Kasta ej batteriet i vattnet eller i hushållssoporna. Batteriet får ej heller utsättas för öppen eld.

SHARP
SHARP CORPORATION

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